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ABSTRACT

Mathematics and the use of mathematical thinking should be much more than what has been traditional school arithmetic. Much of the mathematical reasoning can be developed and experienced out of school, particularly in the home. This material contains recording forms and worksheets for activities for the Level One experiences. Pupils are tc complete these as part of their learning experiences. Forms and worksheets are included for all of the concepts and skills of the Level One program. (YP)

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MEANINGFUL MATHEMATICS

LEVEL ONE

RECORDING FORMS AND WORKSHEETS FOR PUPIL USE

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SE051189

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WRITING NUMERALS
by

*Mathematician:*_____

1 __ 3 4 __ 6 __ 8 9 __

10 __ 8 7 __ __ 4 __ 2 1

2 4 __ 8

9 6 __

1 2 __ __ __ 6 7 __ __

0 1 __ 3 __ 5 __ 7 __ 9

__ 1 2 __ 4 5 __ __ 8 __

0 __ 2 __ 4 __ 6 __ 8 __

0 1 __ __ 4 __ __ __ __

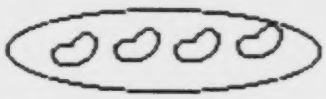
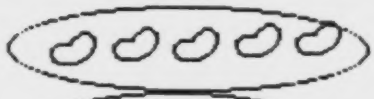
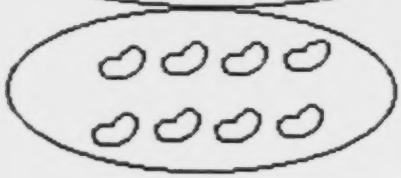
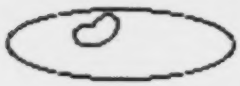
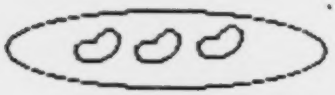
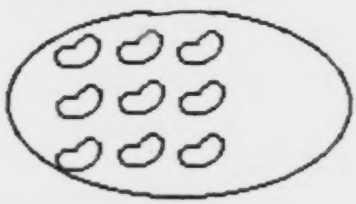
9 __ 7 __ 5 __ 3 __ 1 __

0 1 2 __ __ __ __ __ __ 9

MATCHING
by

Mathematician: _____

Draw a line between numeral and correct number of beans.

Numeral	**Number**
1	
2	
3	
4	
5	
6	
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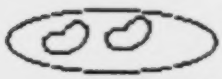
8	
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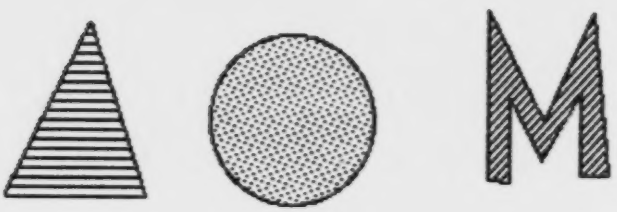
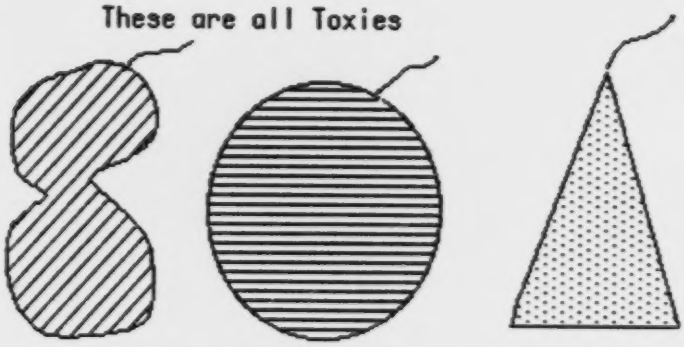
*Mathematician:*_____

These are all blurbs

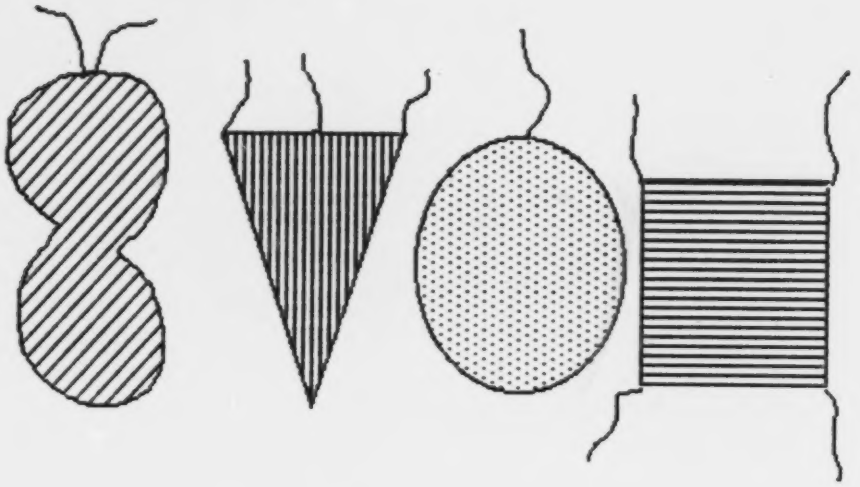
Circle the blurb:



These are all Toxies



Circle the Toxie



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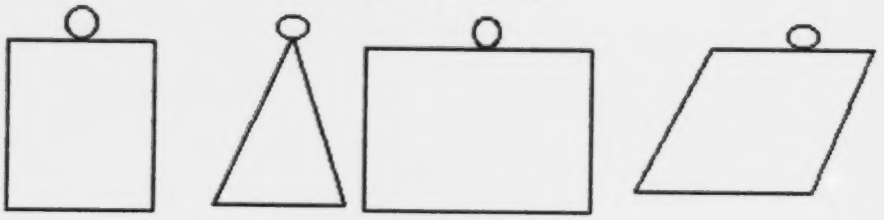
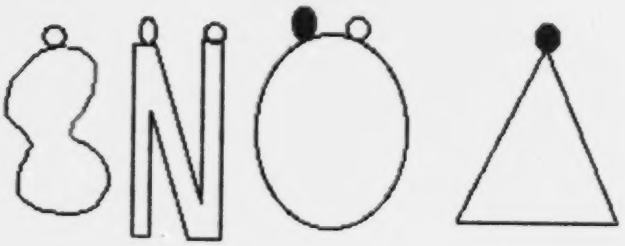
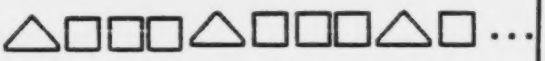
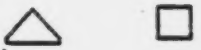
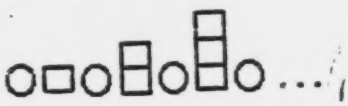
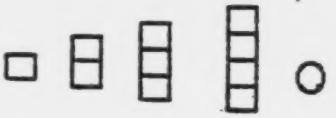


Circle the Arvil



PATTERNS
by

Mathematician: _____

Here is a pattern	Circle the next one in the pattern
1. A B B A B B A B B . . .	A B C
2. B C D B C D B C D B . . .	A B C D E
3. 1 2 1 2 1 2 1 2 . . .	1 2
4. 	
5. 	
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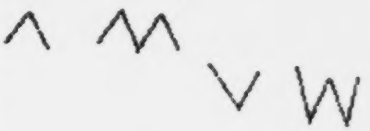
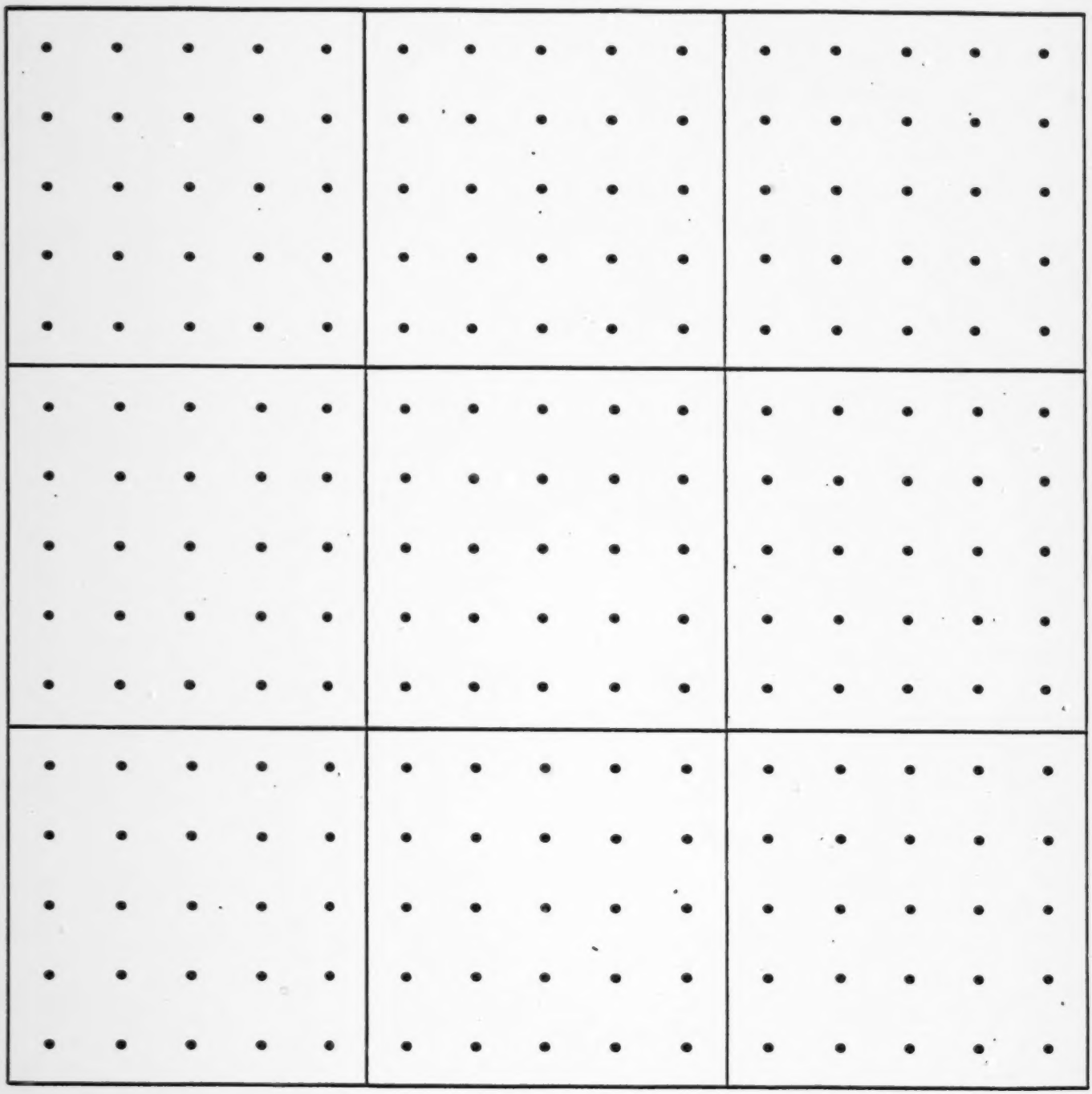
7.	
8. 9 8 7 8 9 8 7 8 9 . . .	9 8 7
9. 1 0 2 0 3 0 4 0 5 . . .	6 0 5

NUMBER STATION

RECORDING FORMS

NUMBER STATION RECORD
for

Mathematician: _____



NUMBER STATION RECORD
for

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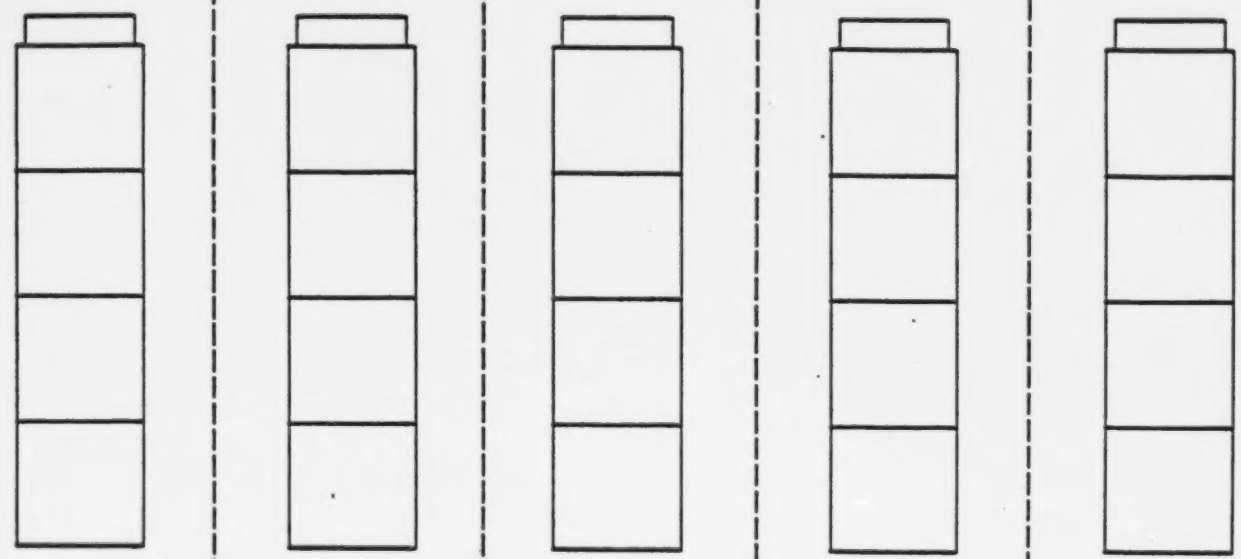

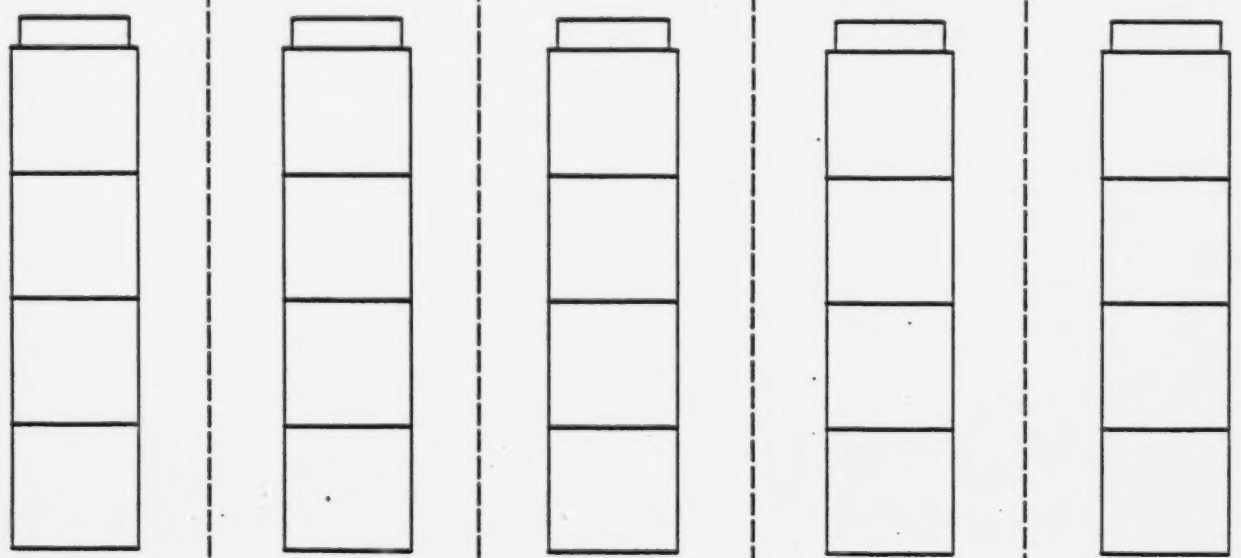

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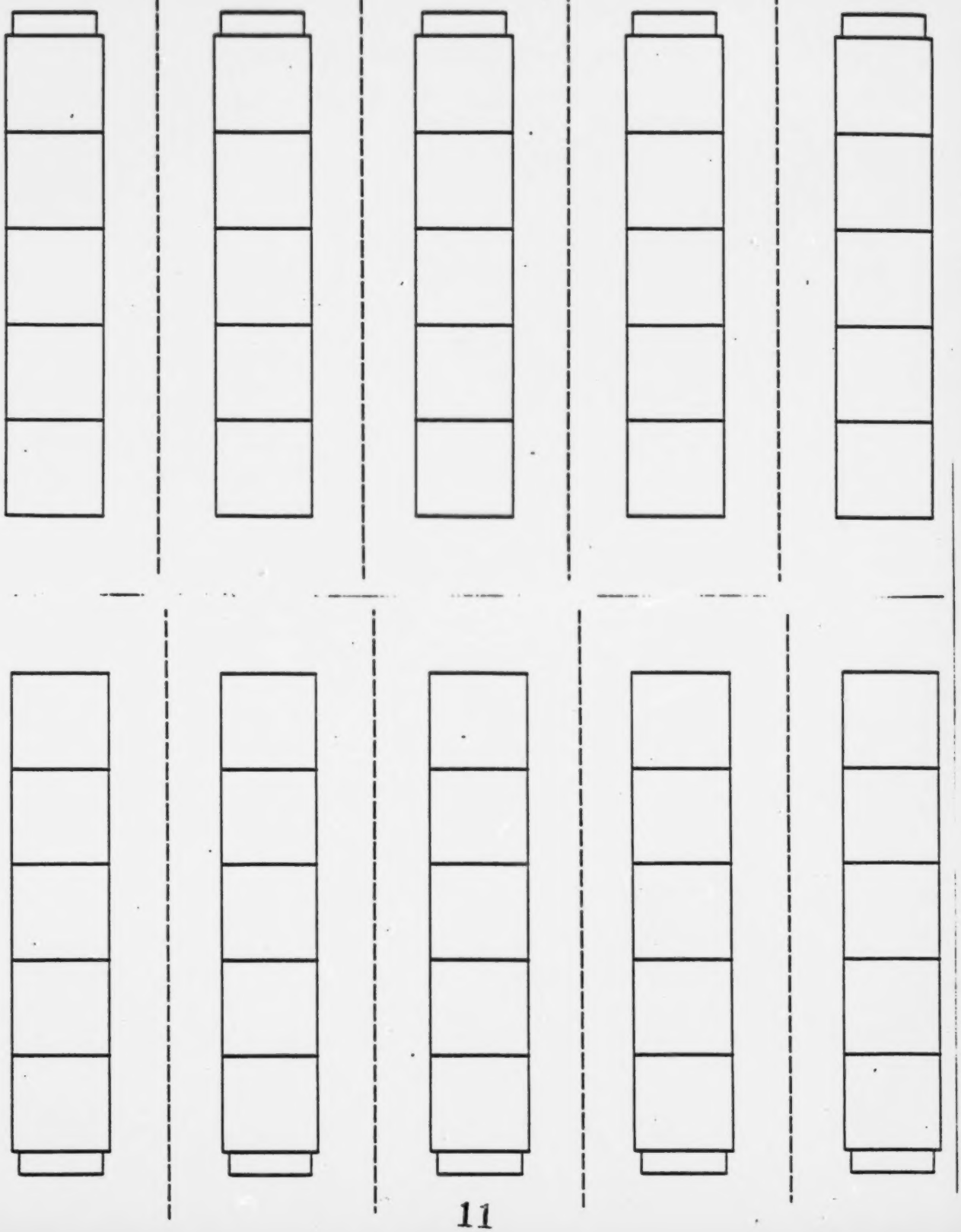

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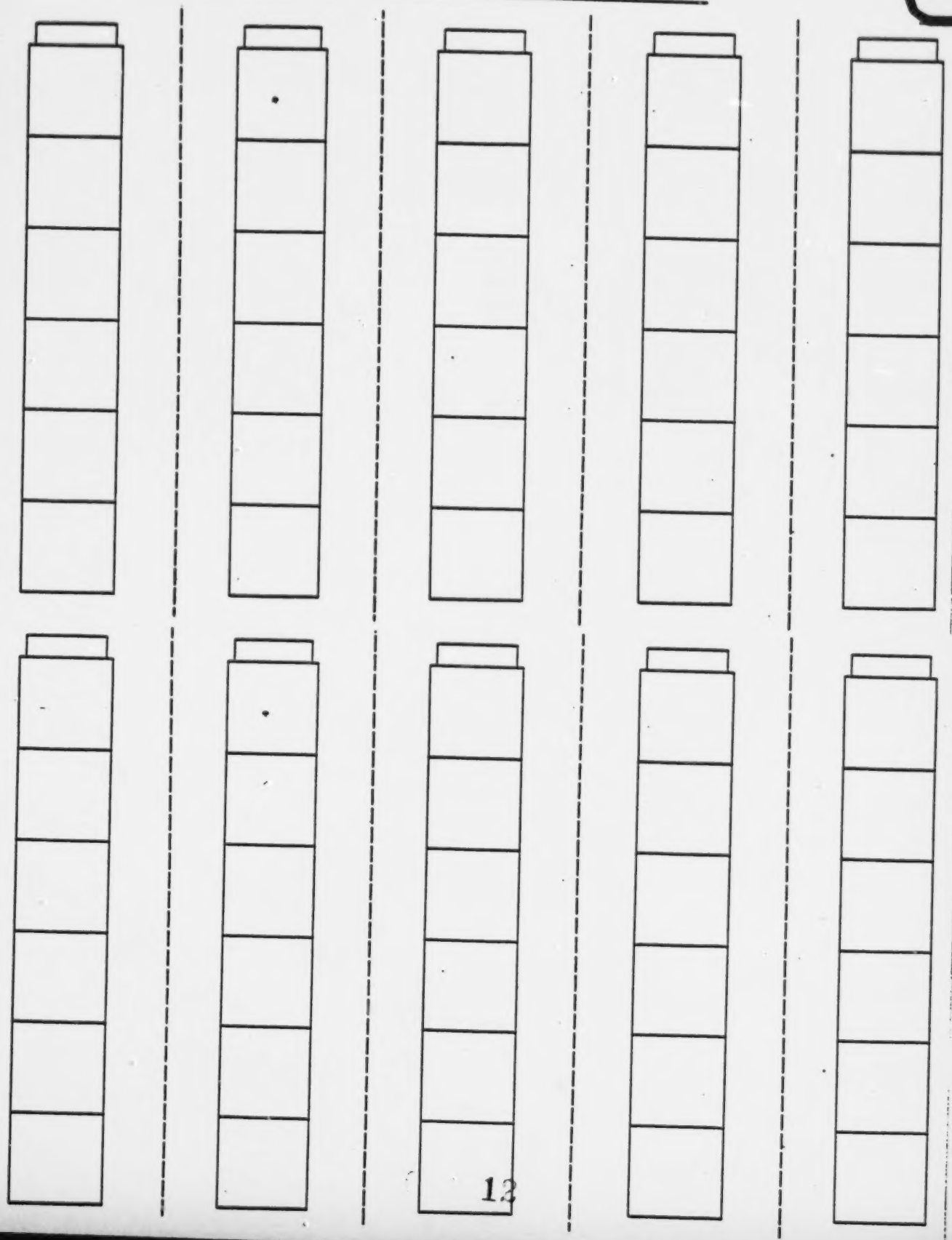

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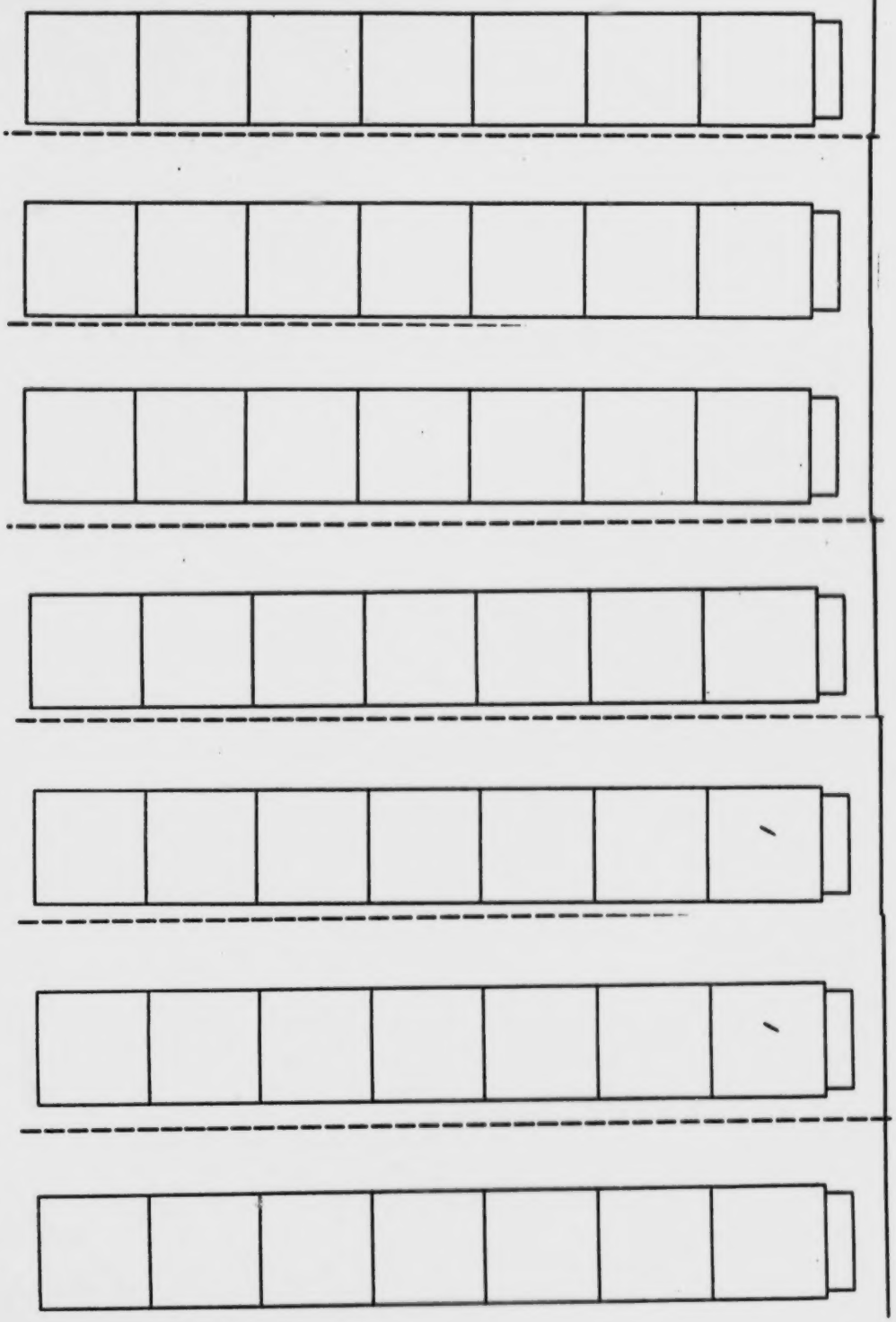

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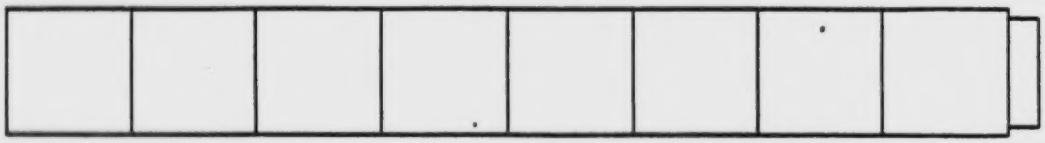

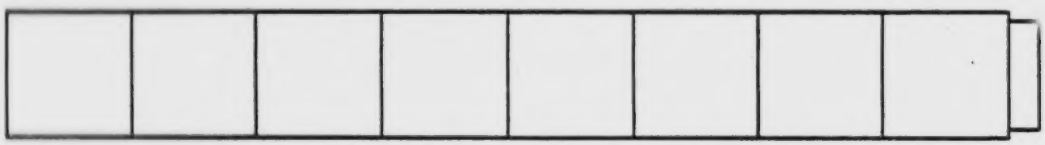

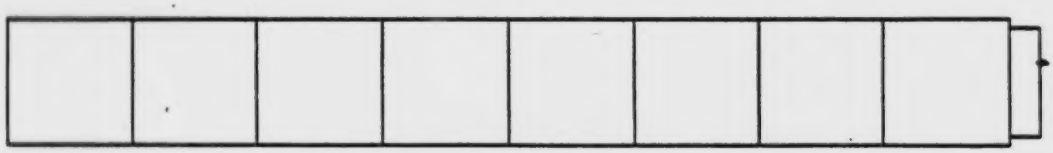

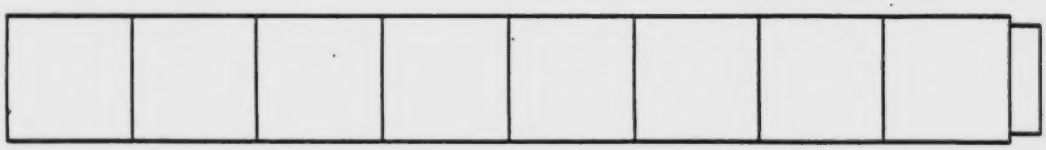

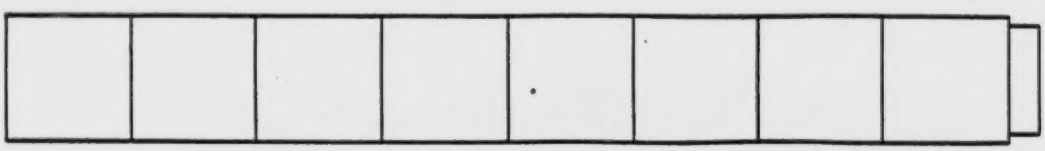

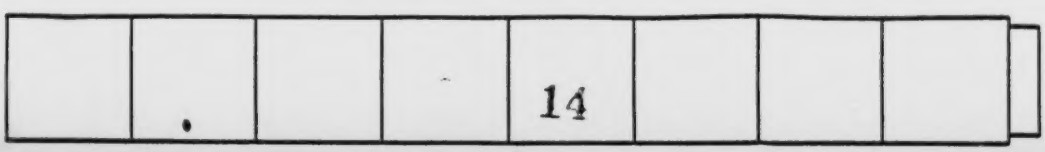

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for

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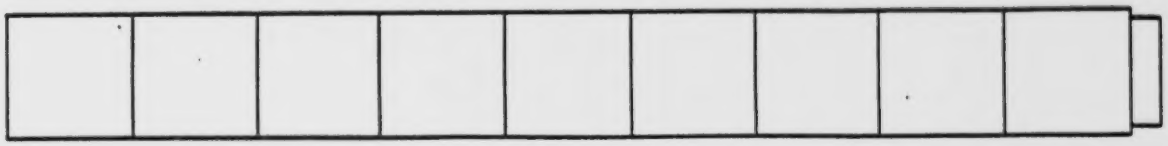

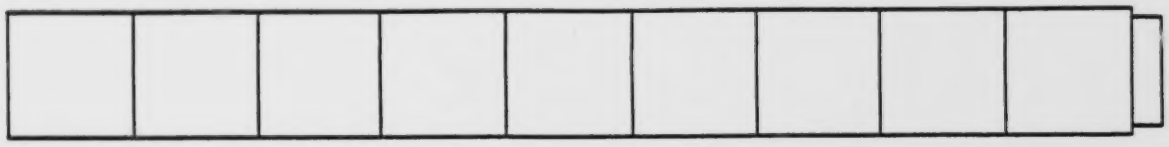

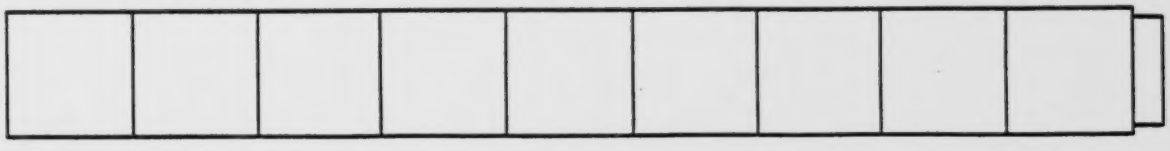

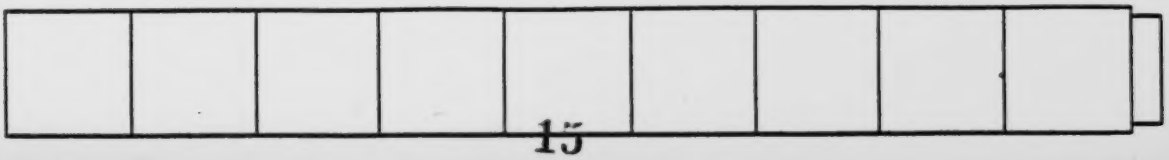

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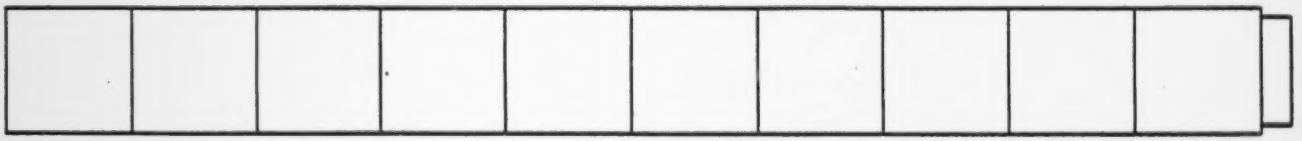

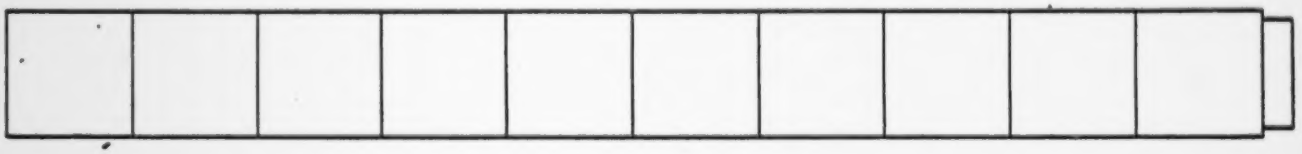

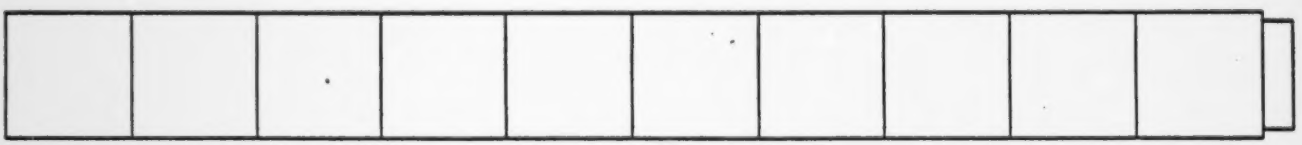

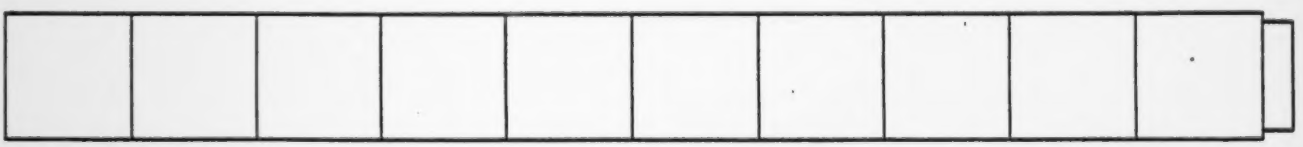

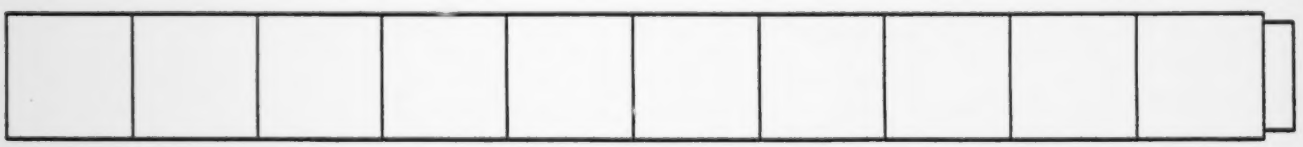

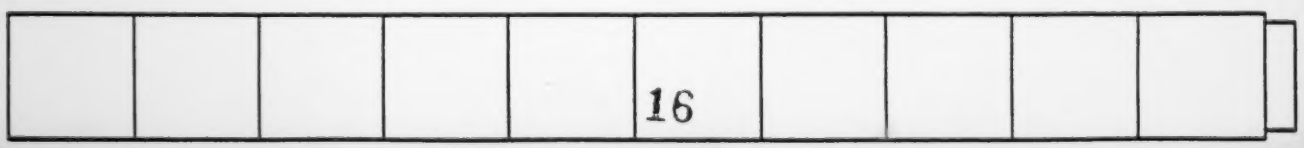

NUMBER STATION RECORD
for

Mathematician: _____

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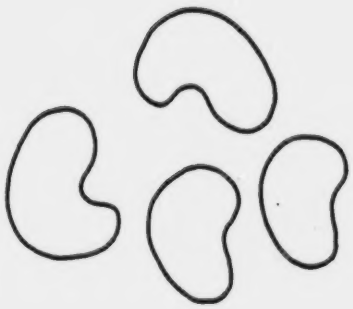

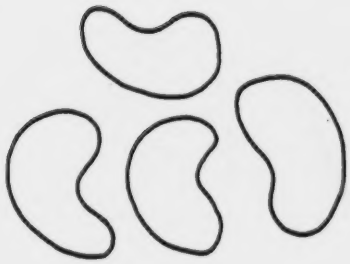

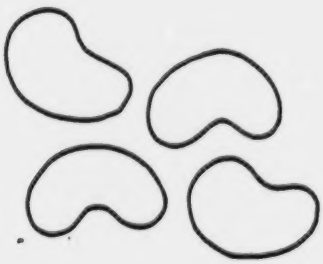

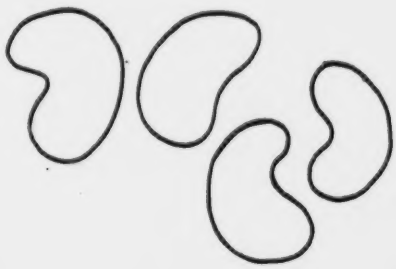

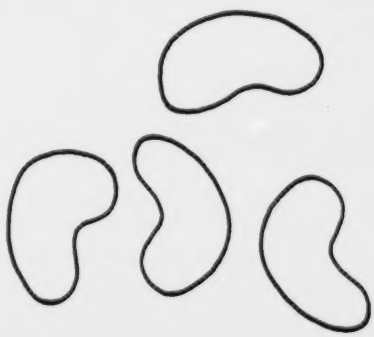

NUMBER STATION RECORD
for

Mathematician: _____

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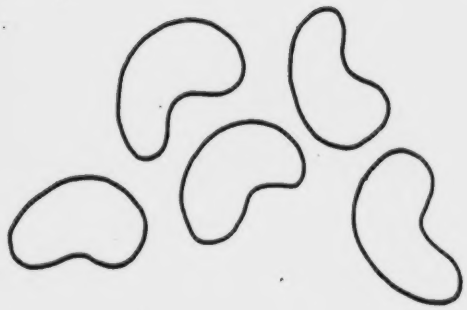
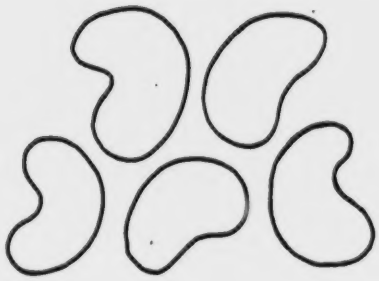
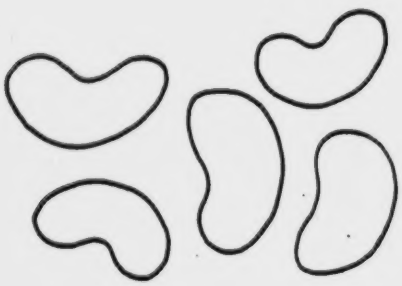
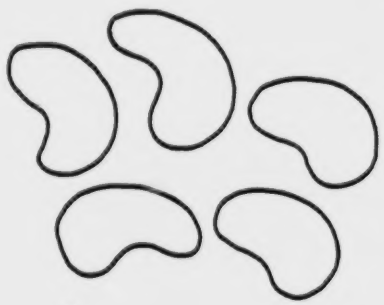
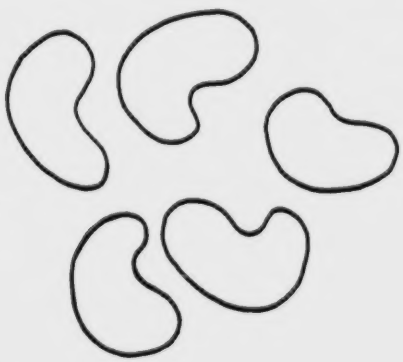
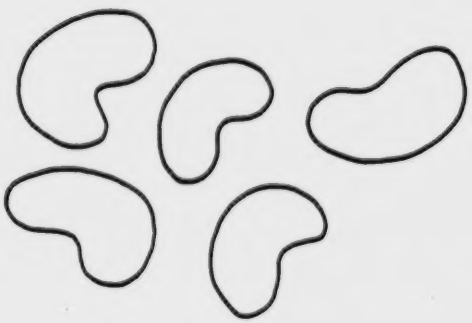








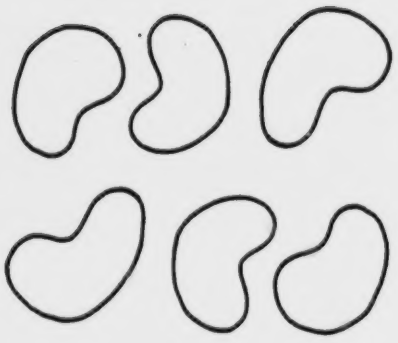


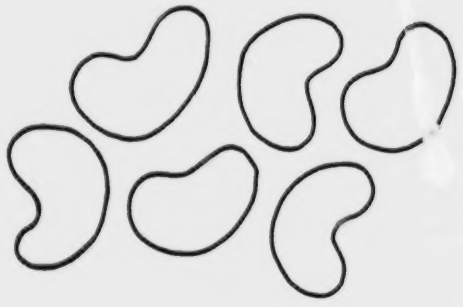


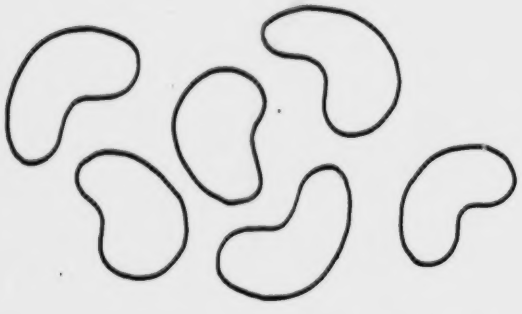
NUMBER STATION RECORD
for

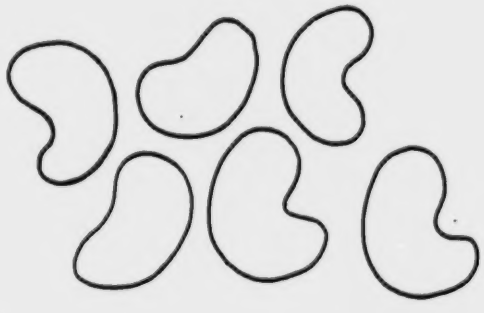
Mathematician: _____

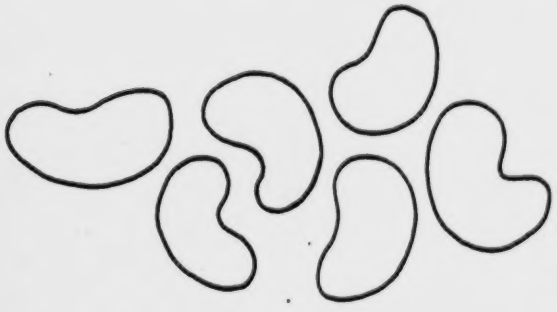
6

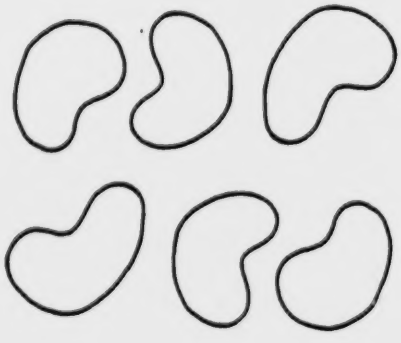








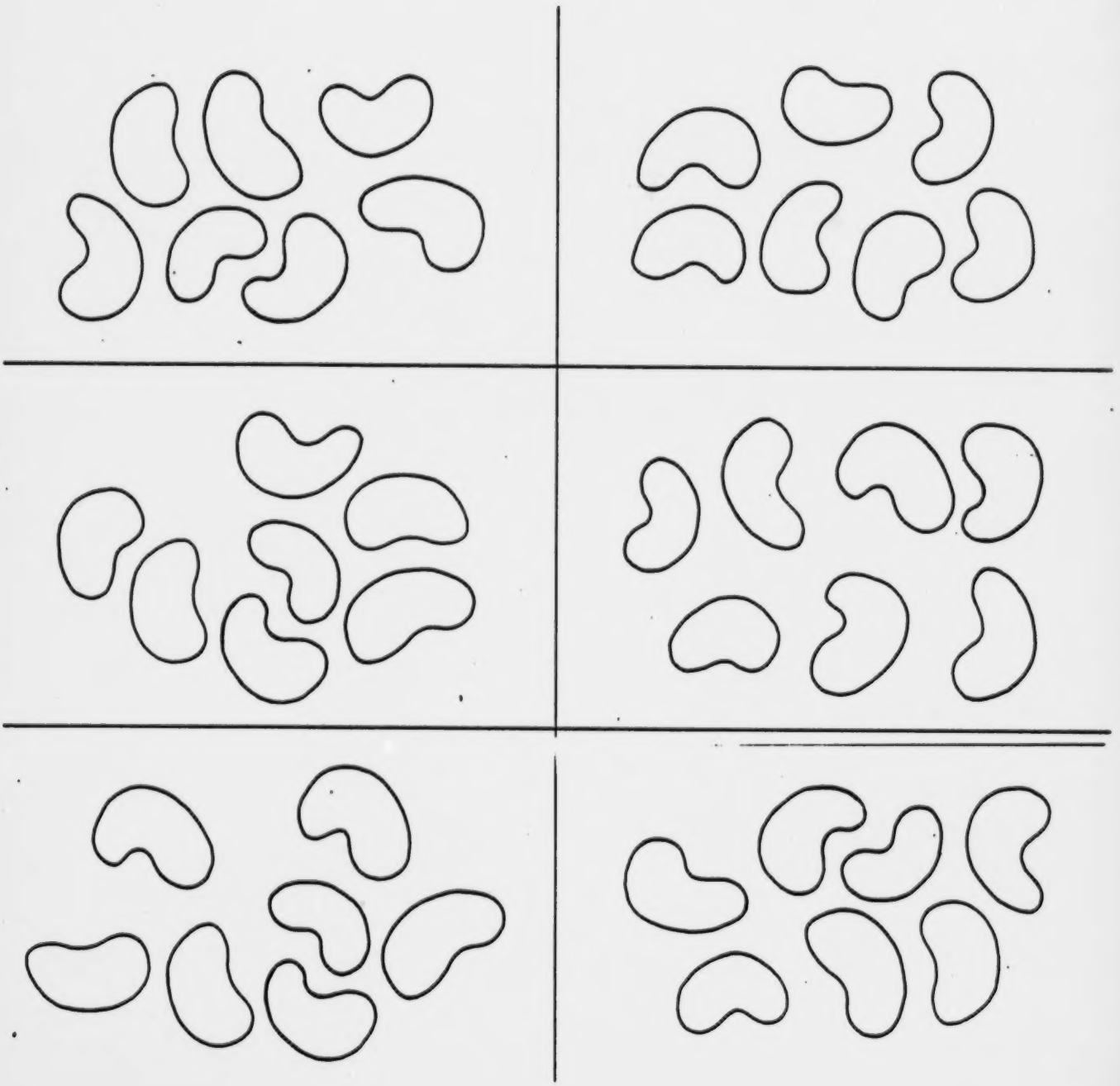




NUMBER STATION RECORD
for

7

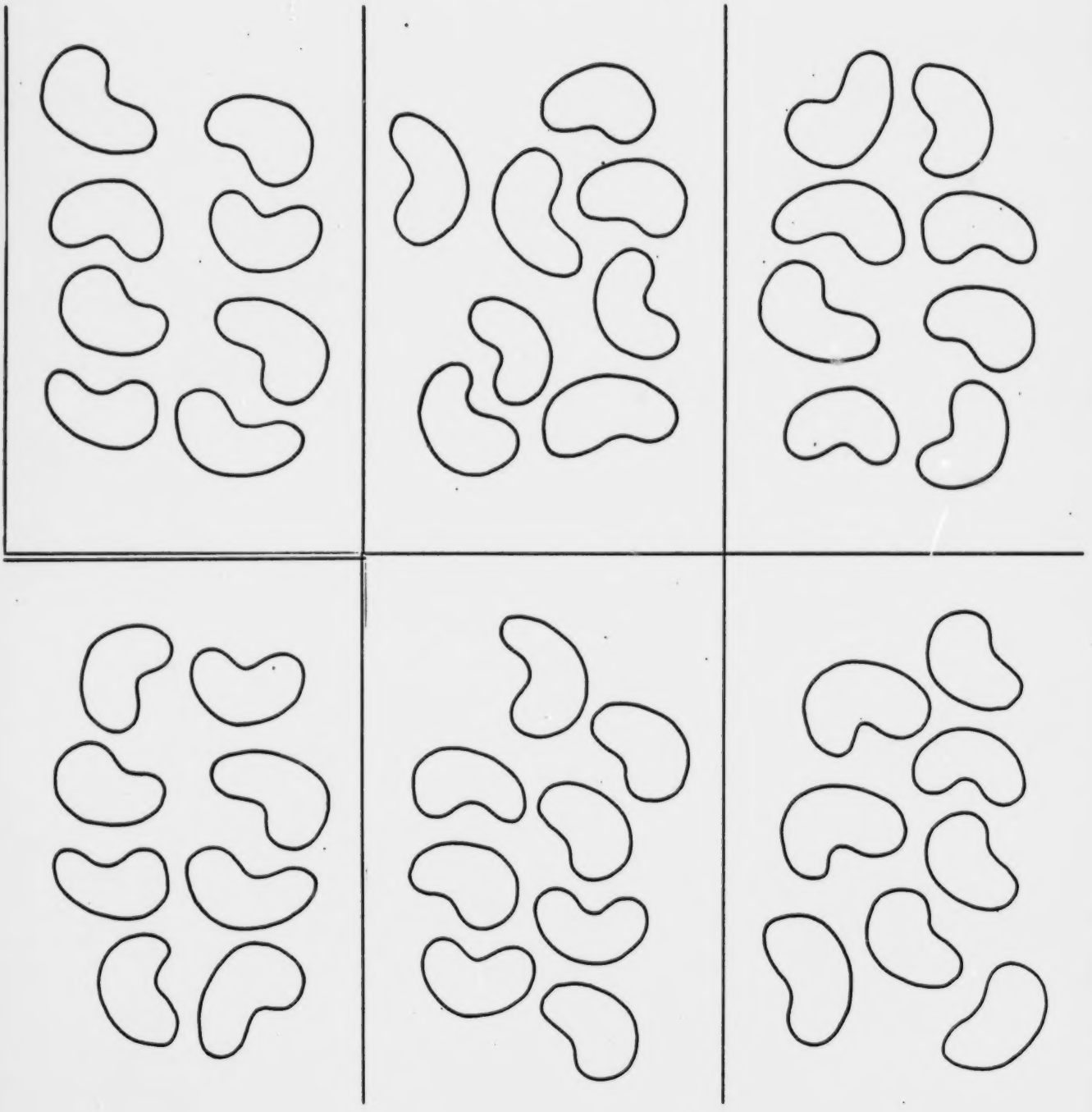
Mathematician: _____



NUMBER STATION RECORD
for

Mathematician: _____

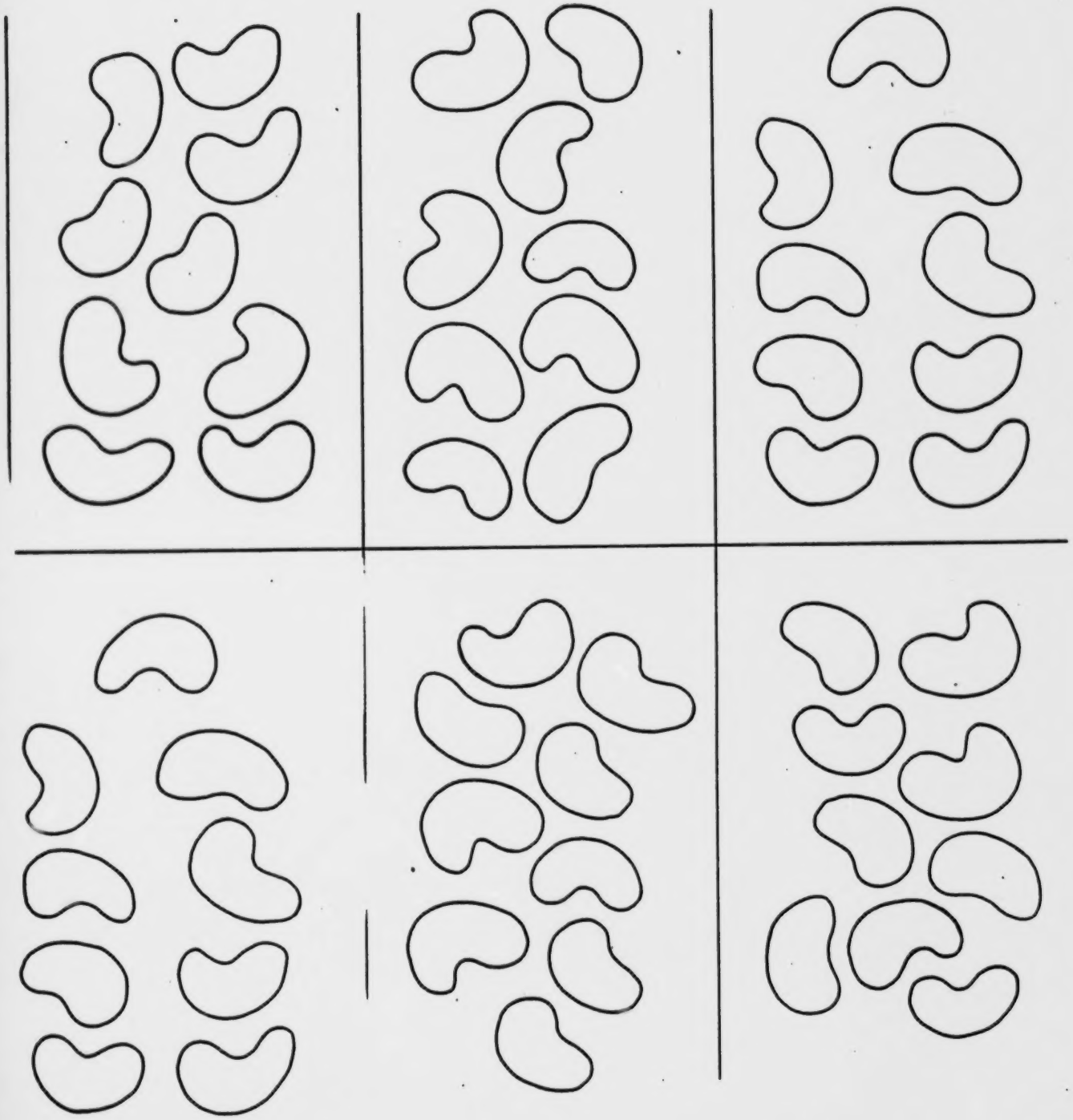
8



NUMBER STATION RECORD
for

Mathematician:_____

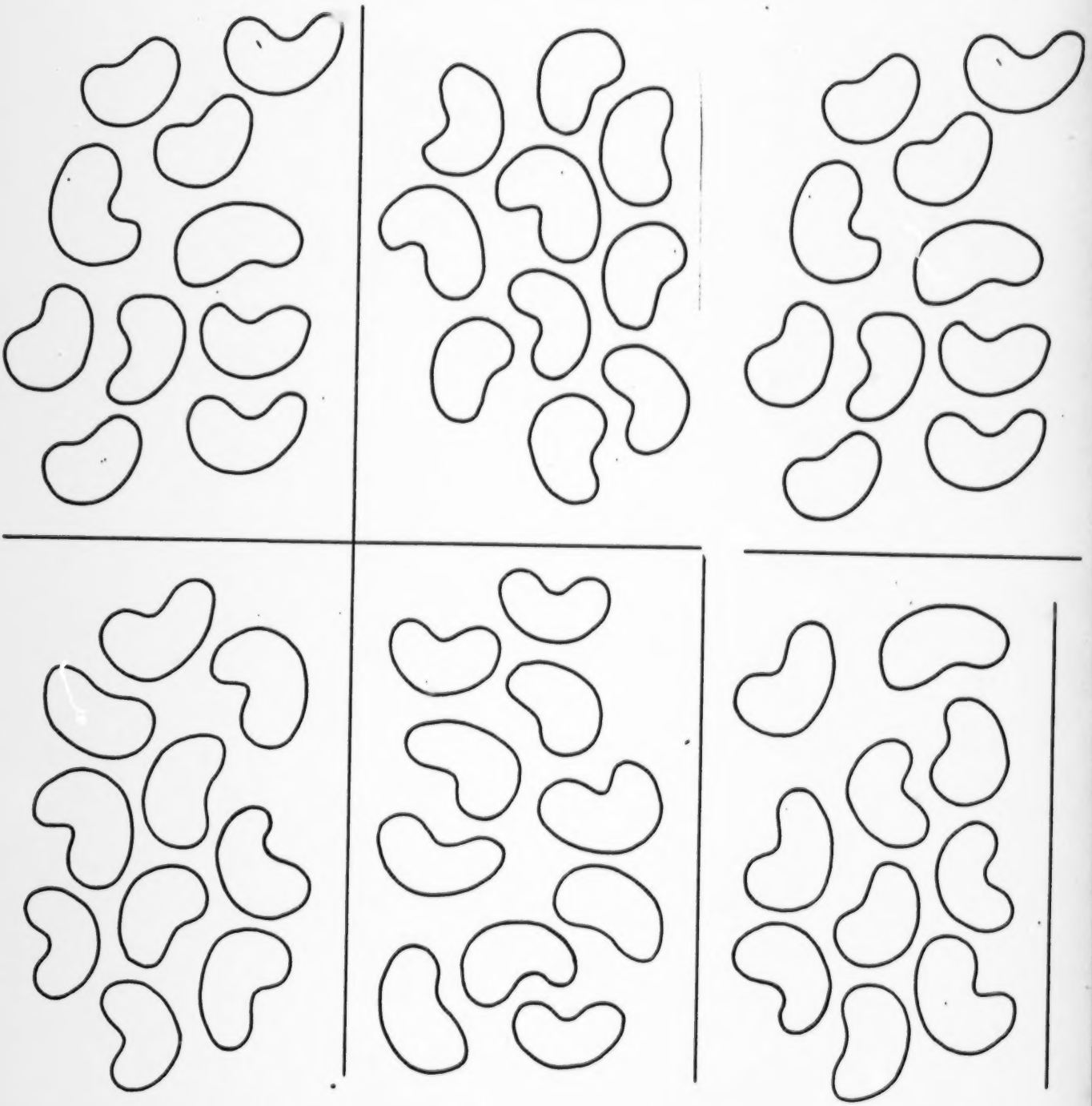
9



NUMBER STATION RECORD
for

Mathematician: _____

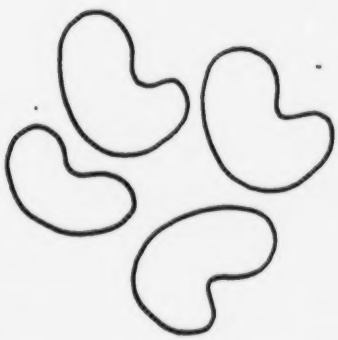
10



NUMBER STATION RECORD
for

Mathematician: _____

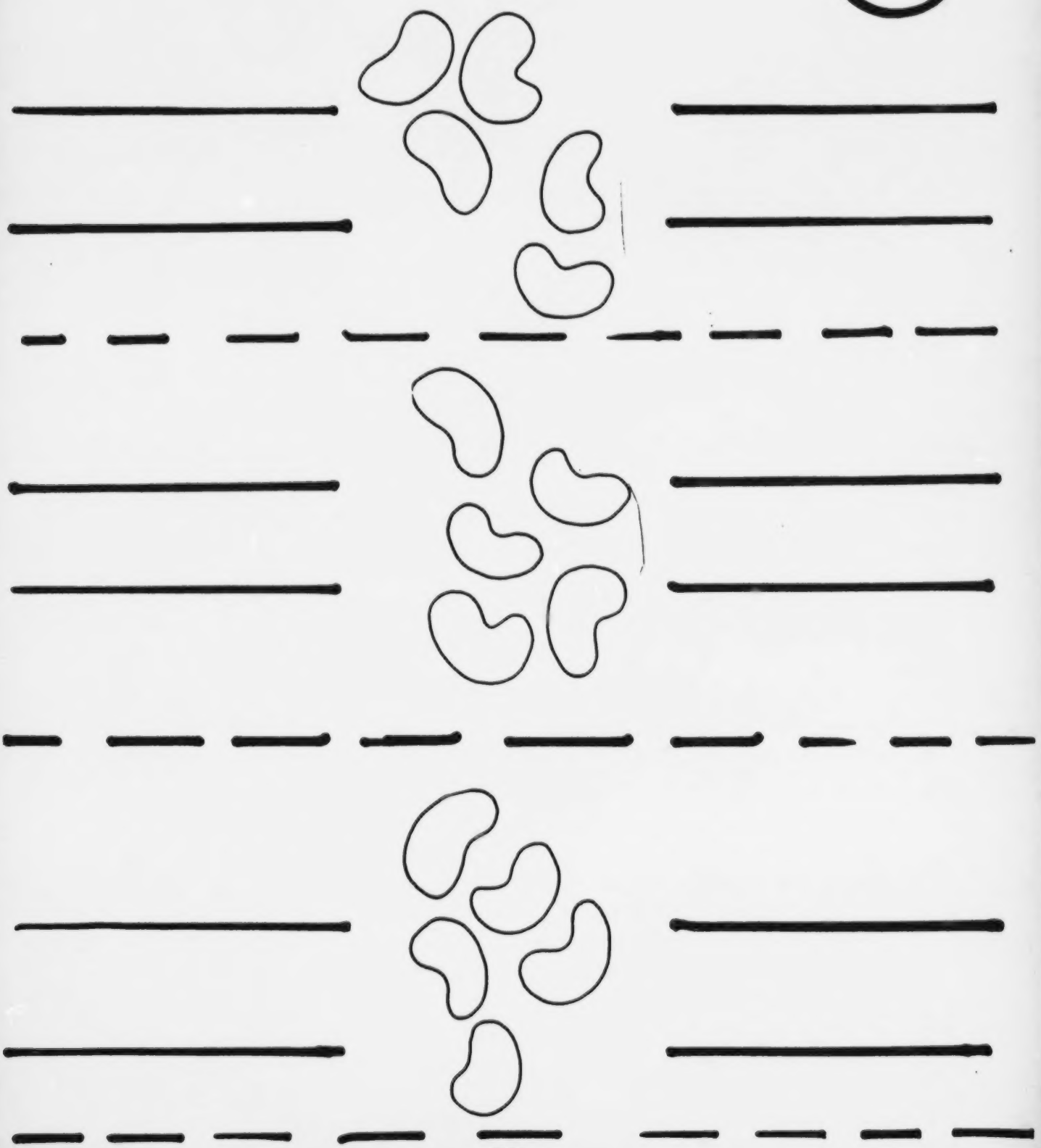
4



NUMBER STATION RECORD
for

Mathematician:_____

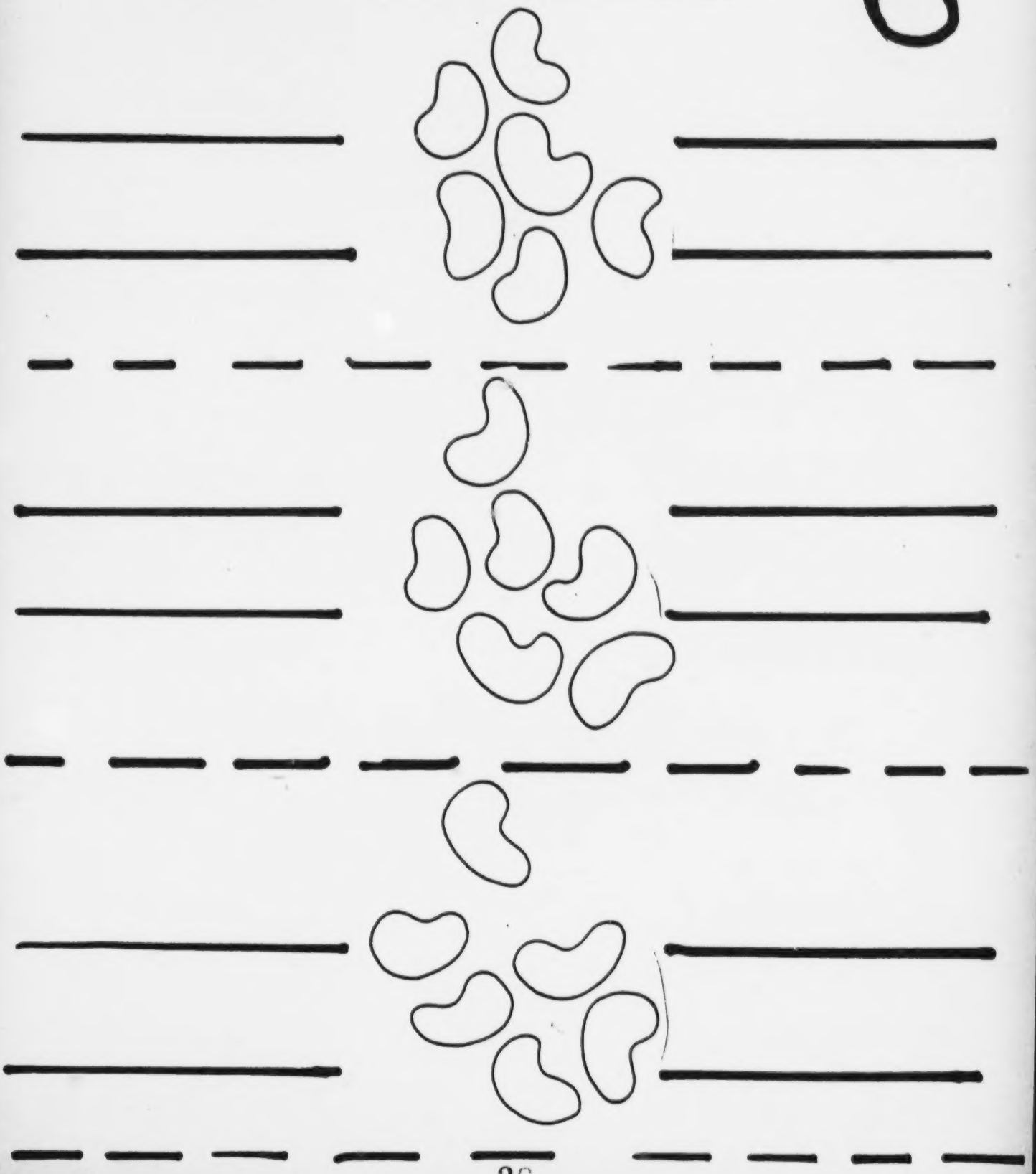
5



NUMBER STATION RECORD
for

Mathematician: _____

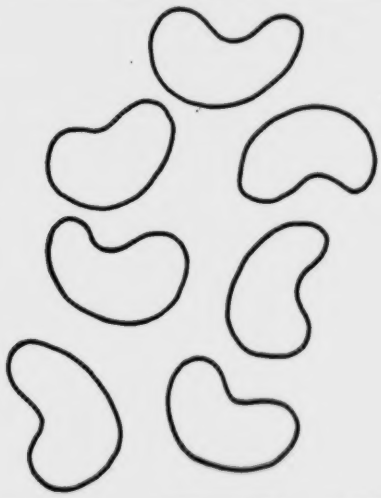
6

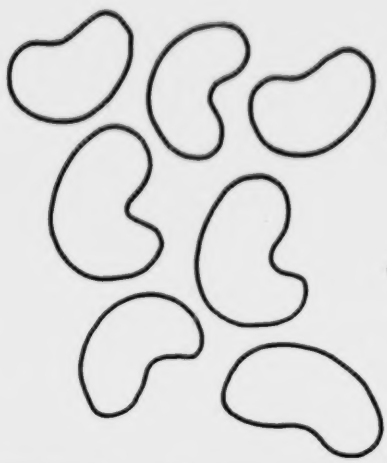


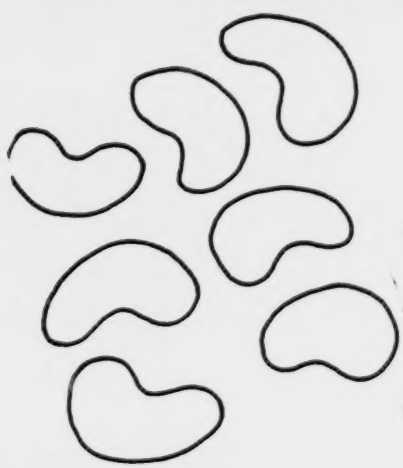
NUMBER STATION RECORD
for

Mathematician:_____

7



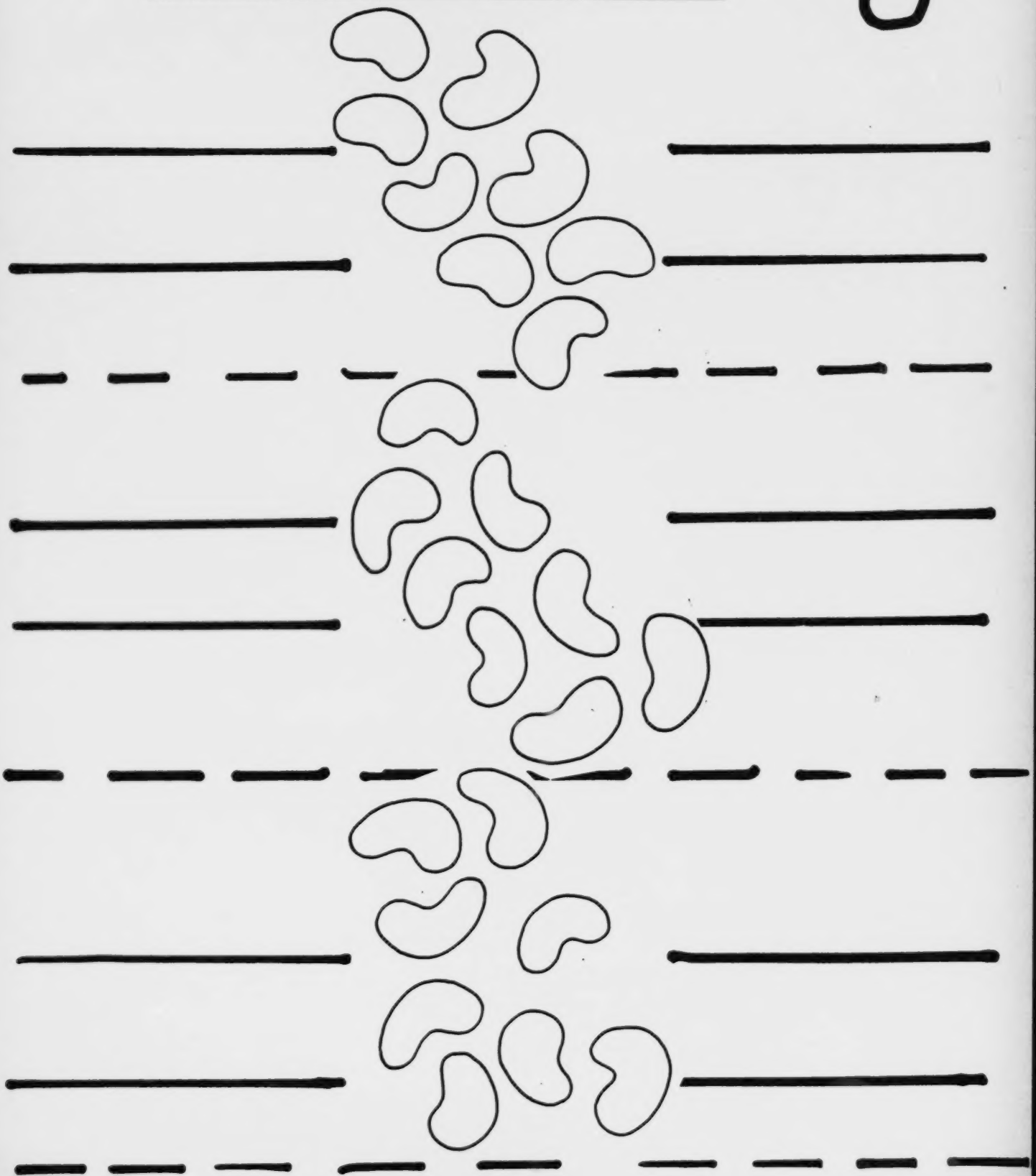




NUMBER STATION RECORD
for

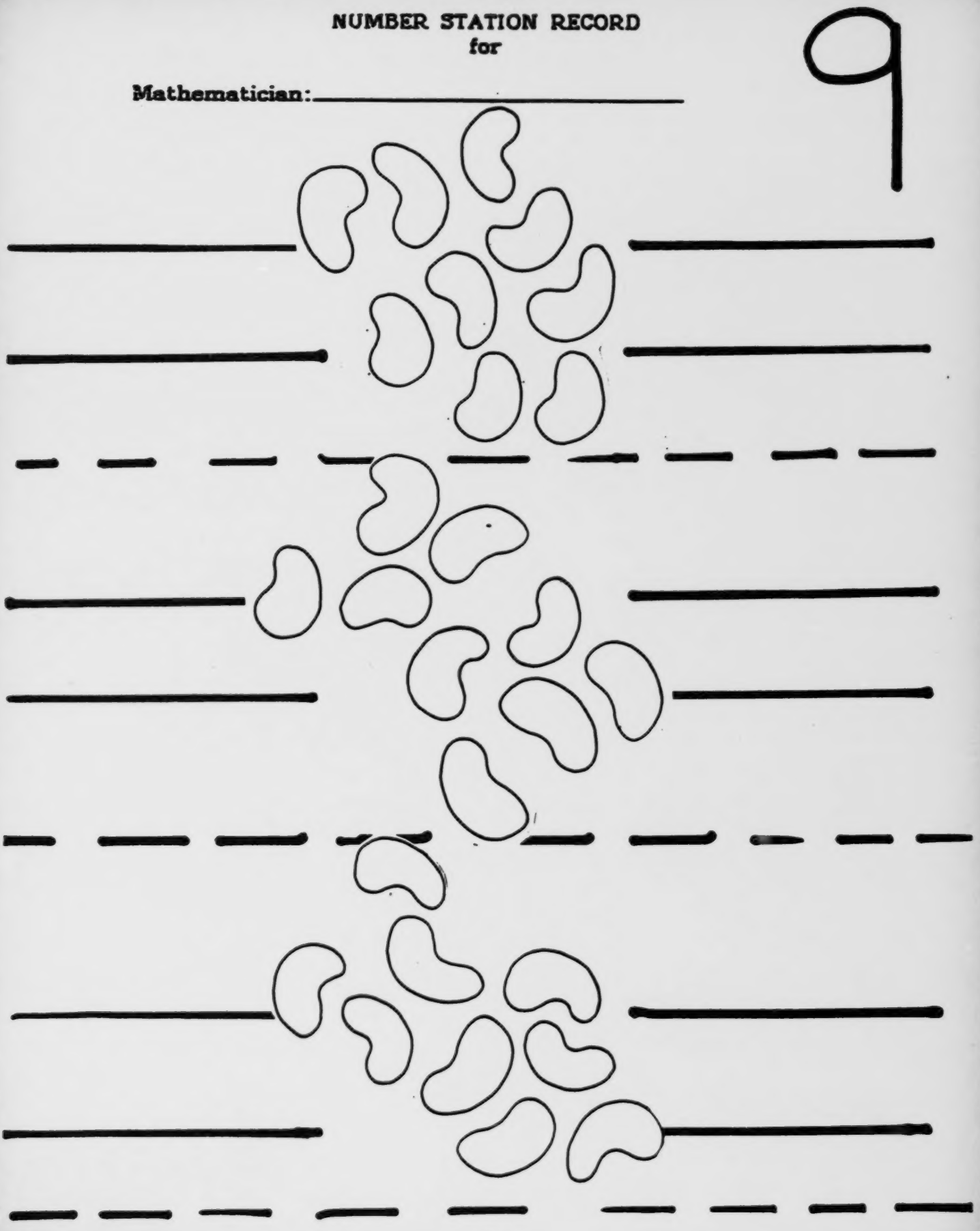
8

Mathematician: _____



NUMBER STATION RECORD
for

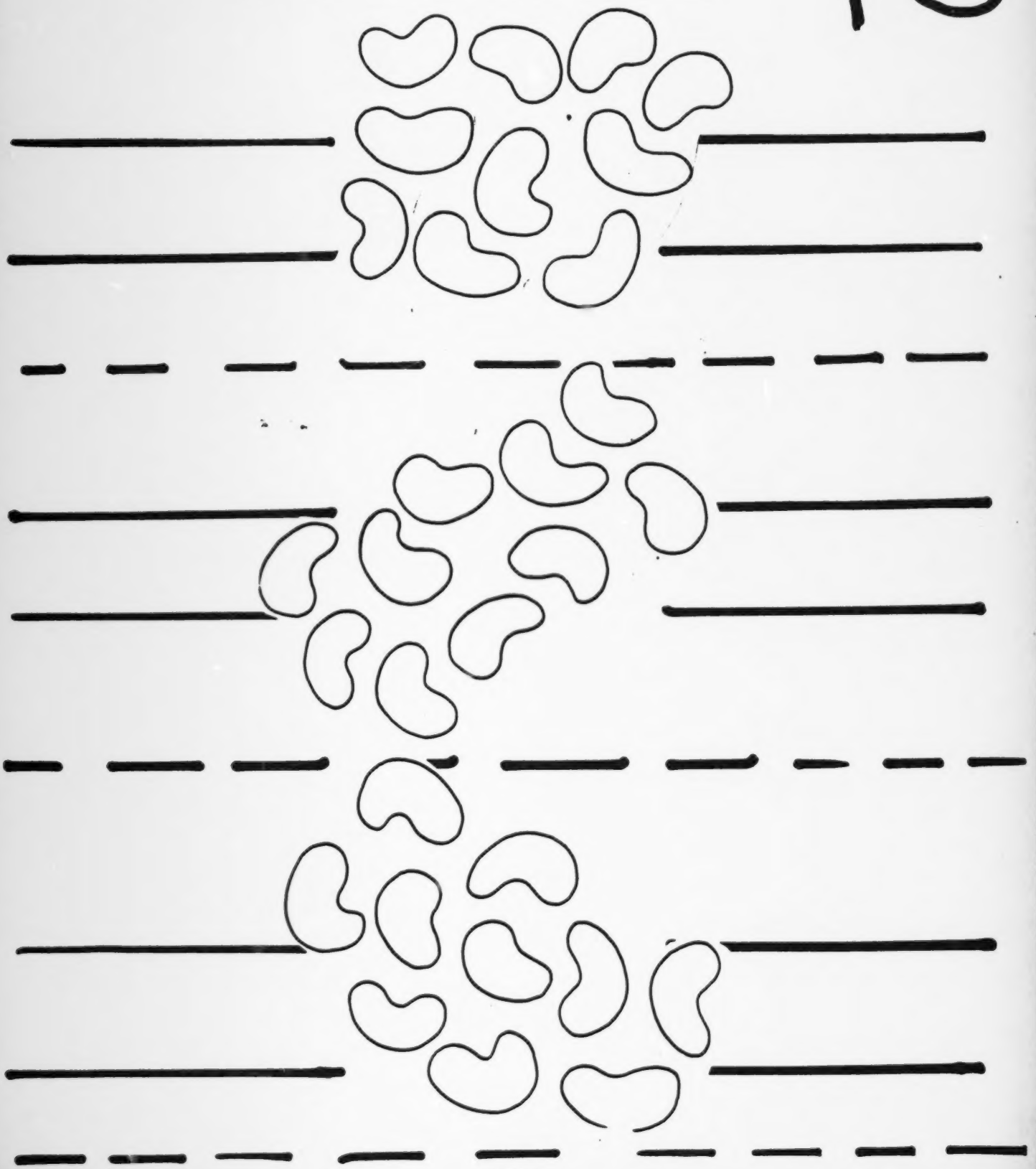
Mathematician:_____



NUMBER STATION RECORD
for

10

Mathematician: _____



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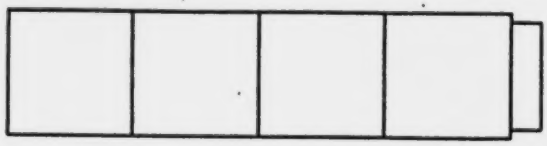
NUMBER STATION RECORD
for

Mathematician: _____



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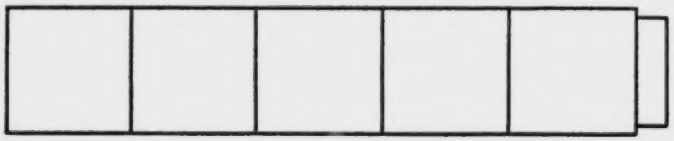
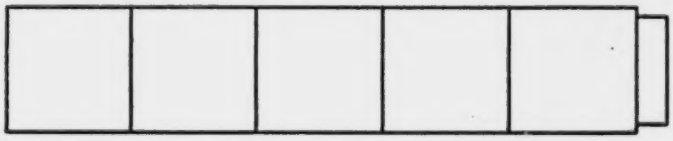
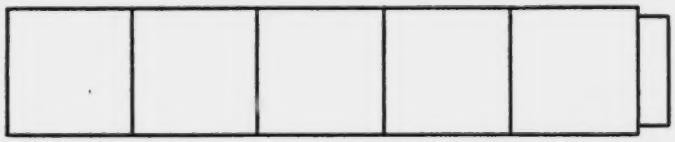
5

NUMBER STATION RECORD
for

Mathematician: _____







NUMBER STATION RECORD
for

6

Mathematician:_____

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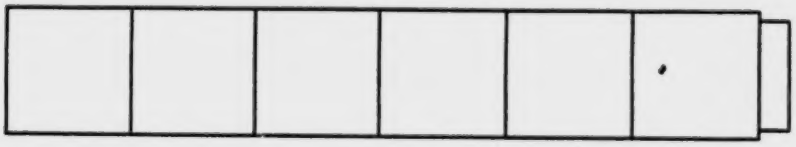

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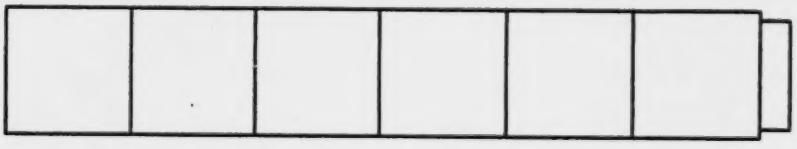

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NUMBER STATION RECORD
for

7

Mathematician: _____

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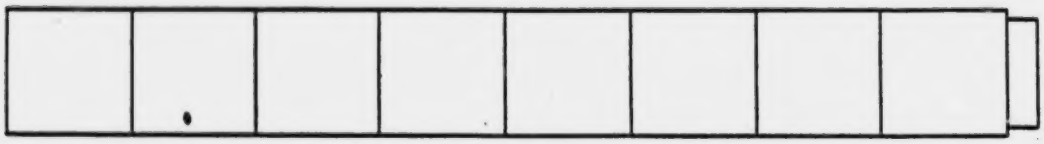
8

NUMBER STATION RECORD
for

Mathematician: _____



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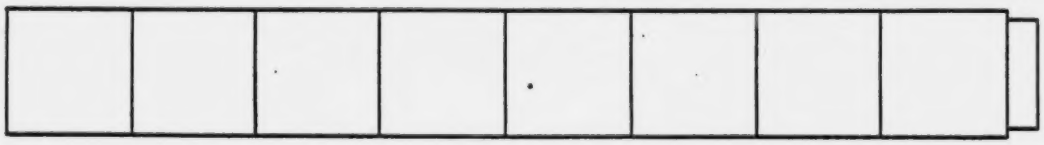

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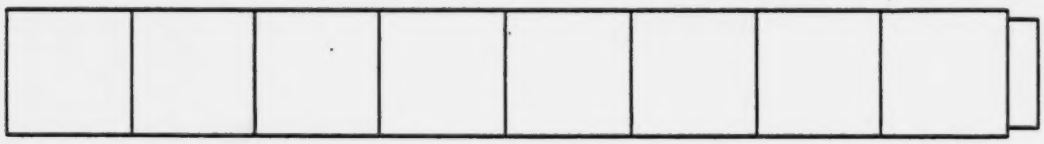

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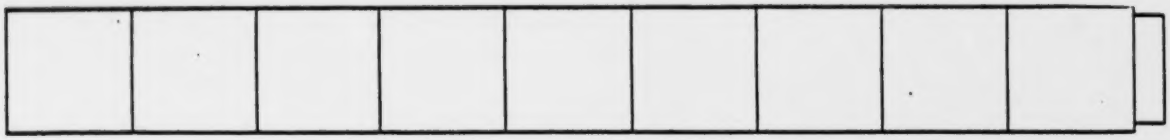
NUMBER STATION RECORD
for

9

Mathematician: _____



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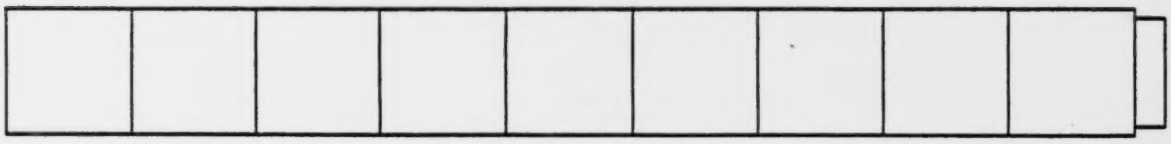

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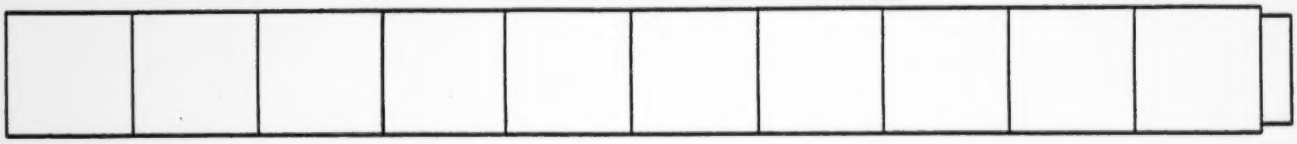
NUMBER STATION RECORD
for

10

Mathematician: _____



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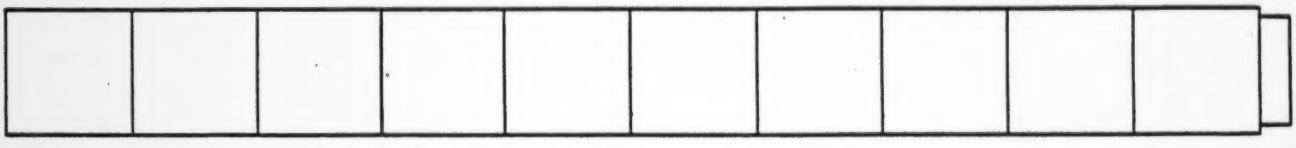

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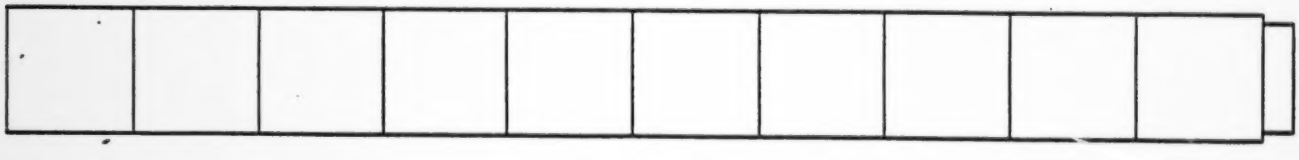

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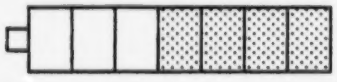
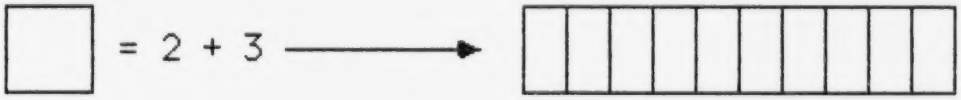
Mathematician:_____

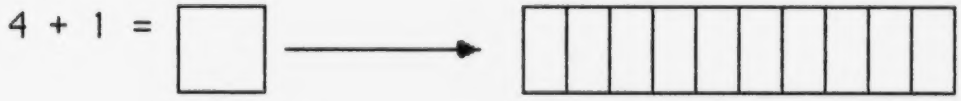
"I colored the Unifix Cubes to show how a number is made of TWO parts."

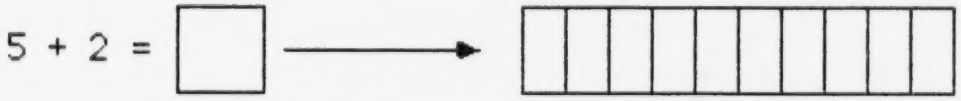
Example:

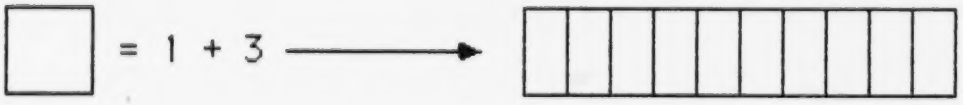
3 + 4 = 7

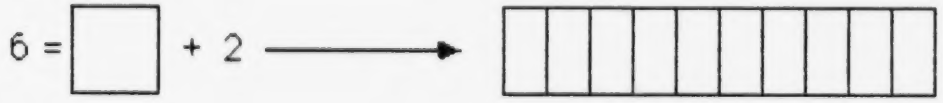












Mathematician:_____

"I used three colors to show how numbers are made of three parts."

UNIFIX LINK	NUMBER SENTENCES

11889.1

Mathematician:_____

"I used three colors to show how numbers are made of three parts."

UNIFIX LINK	NUMBER SENTENCES

11889.2

Number concept 2

Mathematician:_____

"I used three colors to show how numbers are made of three parts."

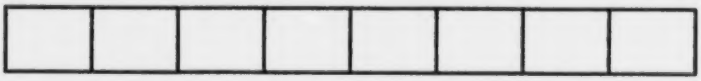
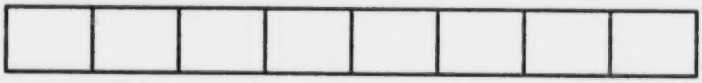
UNIFIX LINK	NUMBER SENTENCES

11889.3

Number Concept =

Mathematician:_____

"I used three colors to show how numbers are made of three parts."

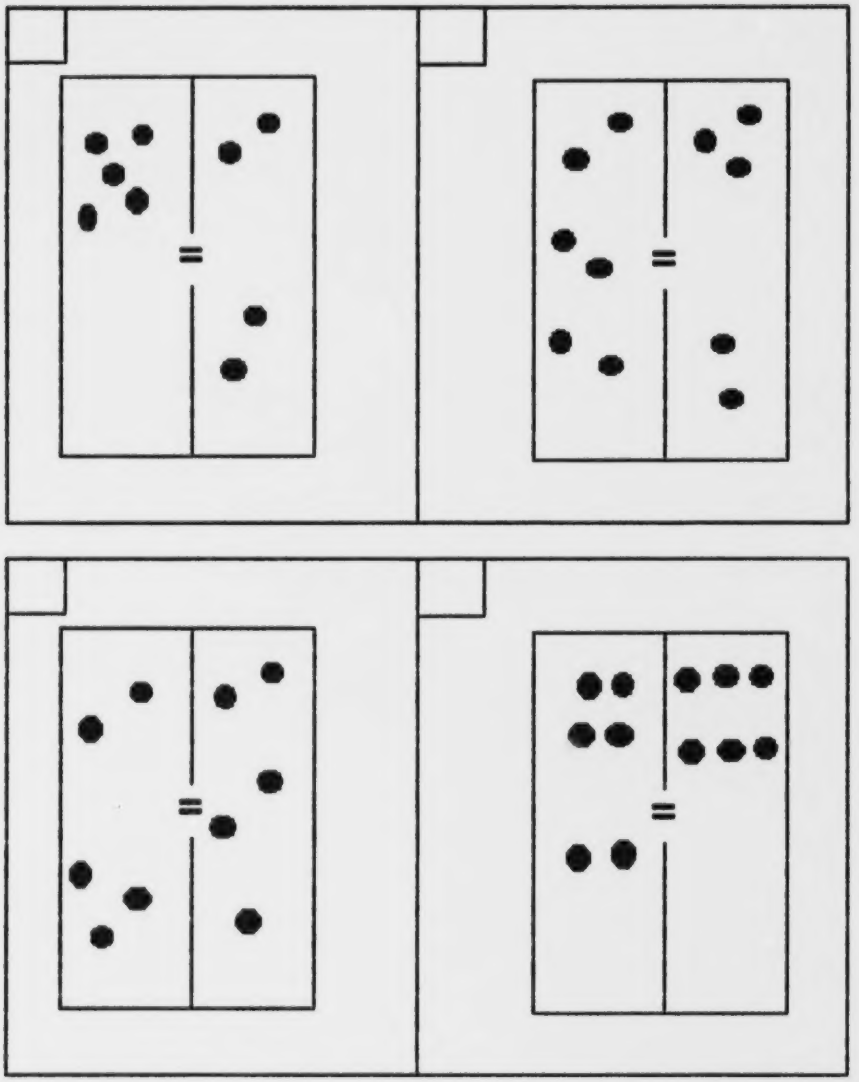
UNIFIX LINK	NUMBER SENTENCES
	
	

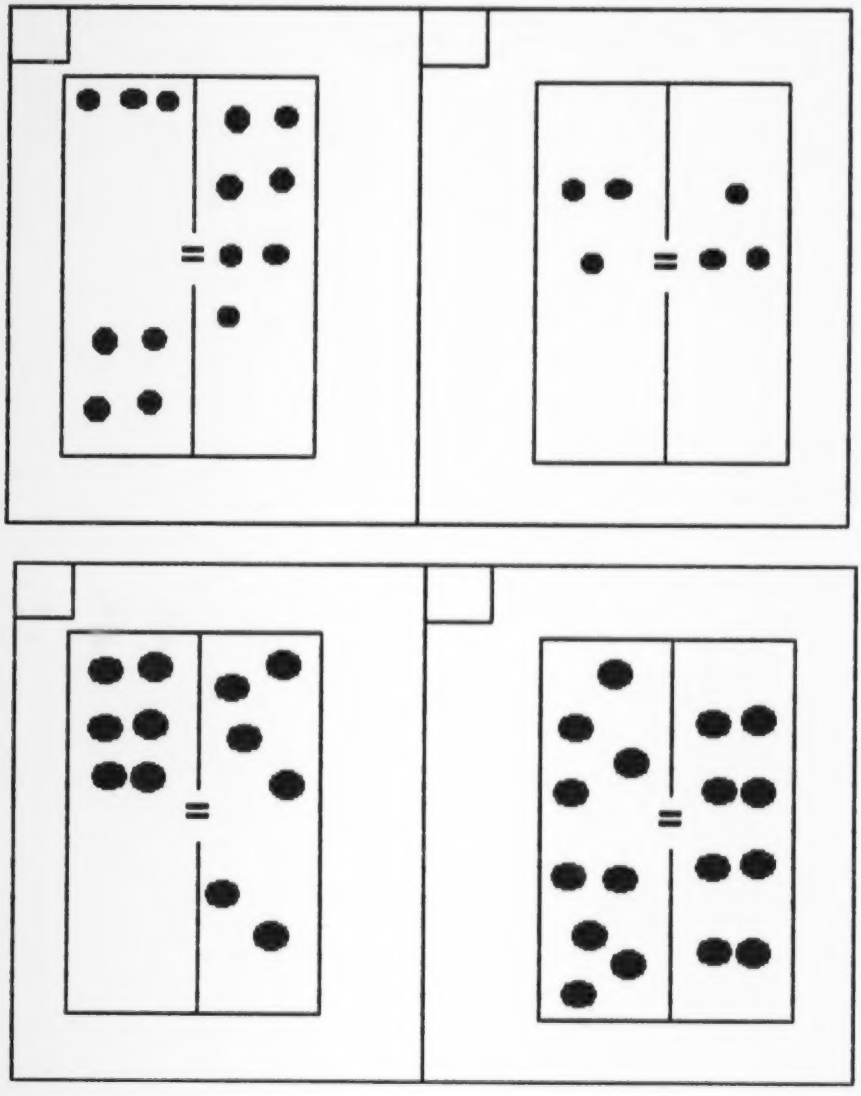
11889.4

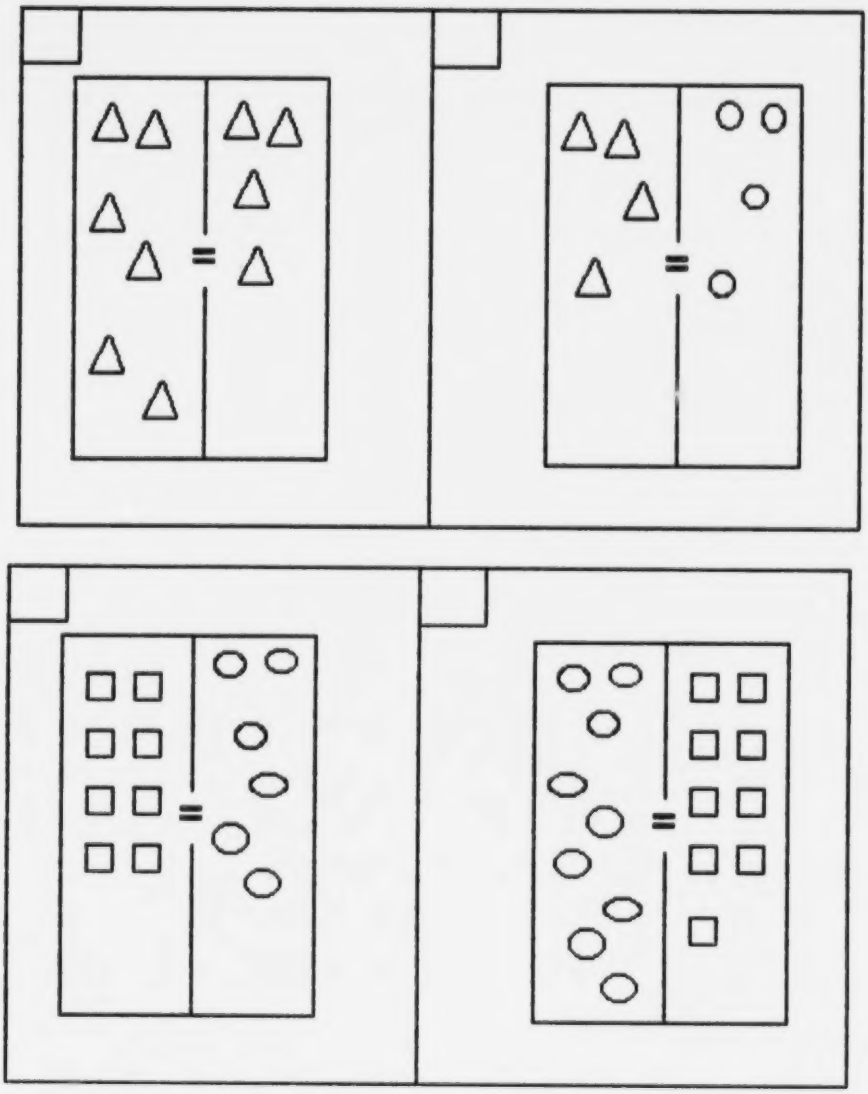
Number Concept =

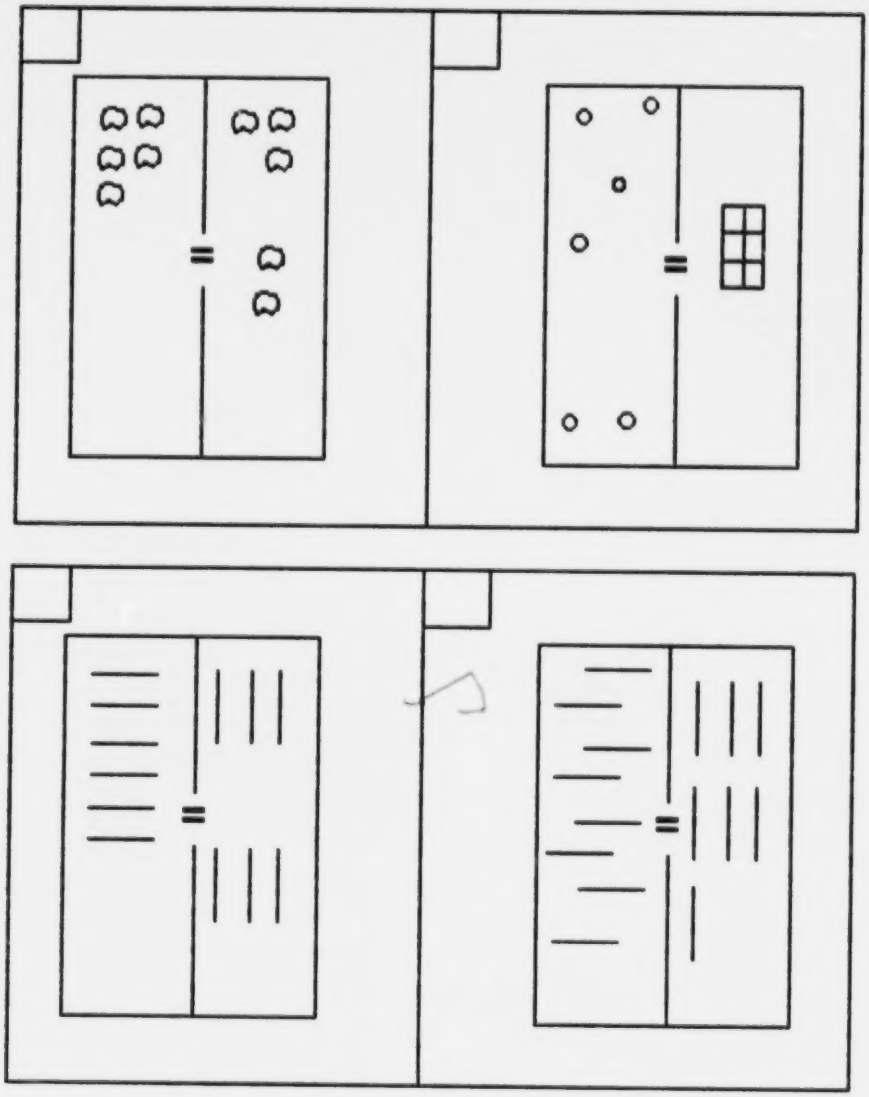
*Mathematician:*_____

Put an "x" in the box for each equality board that shows both sides equal.







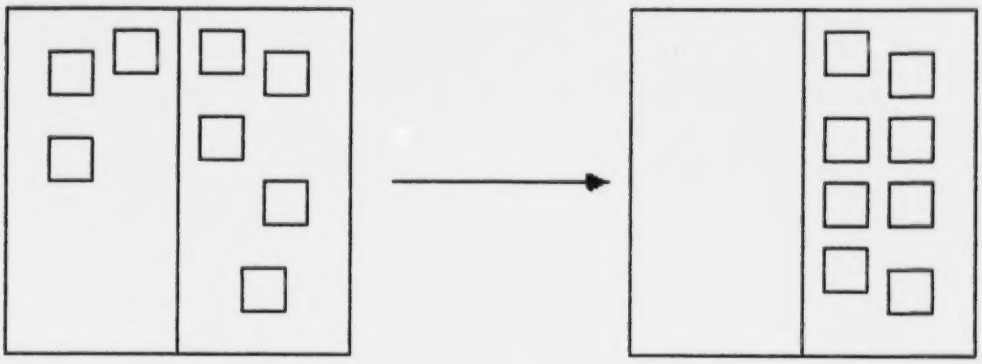


Mathematician:_____

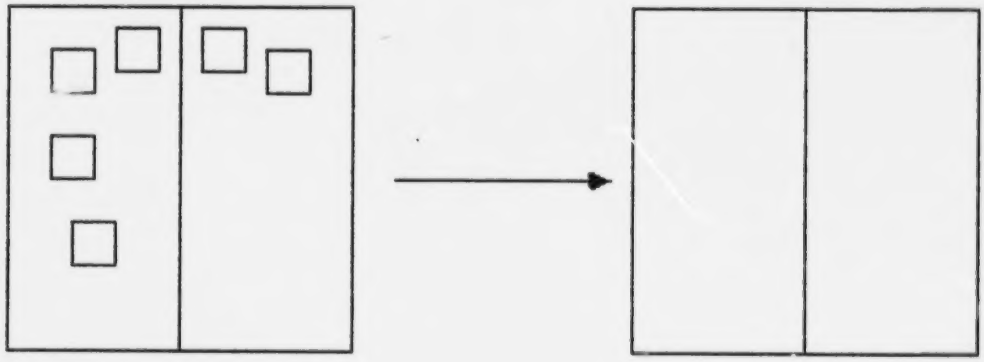
"I joined Unifix cubes on the workmat the find a number for the ☐."

Example:

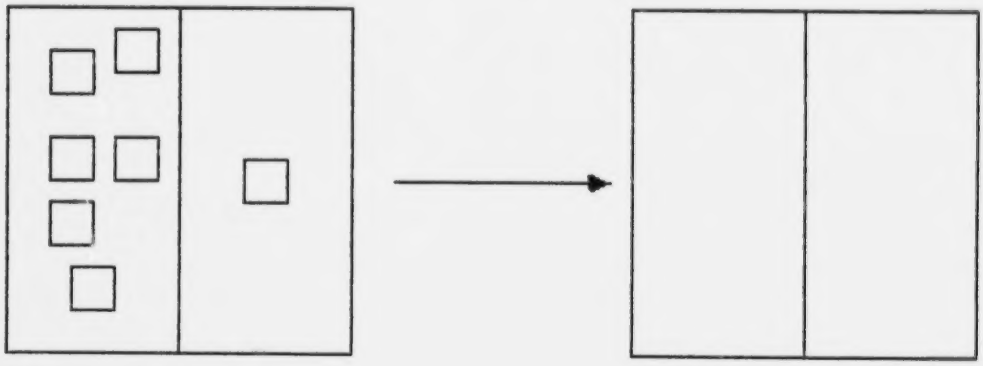
3 + 5 = 8



☐ = 4 + 2

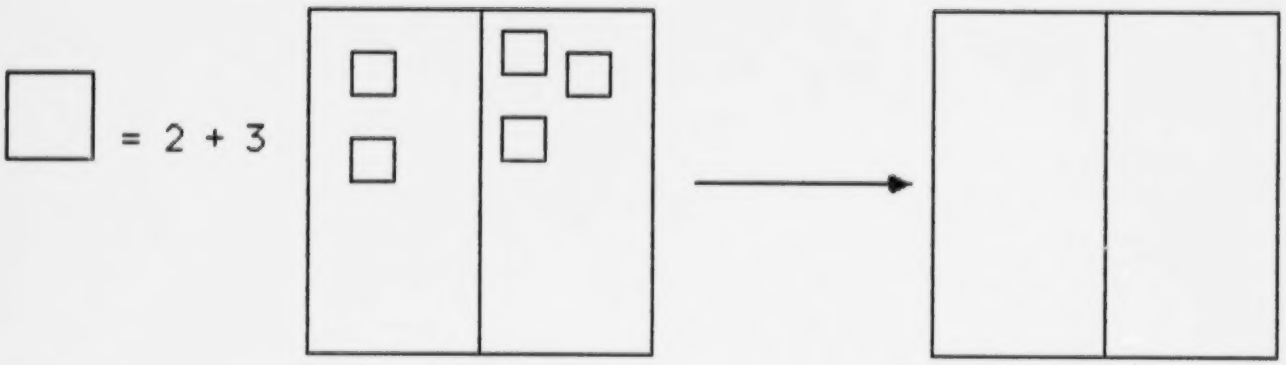


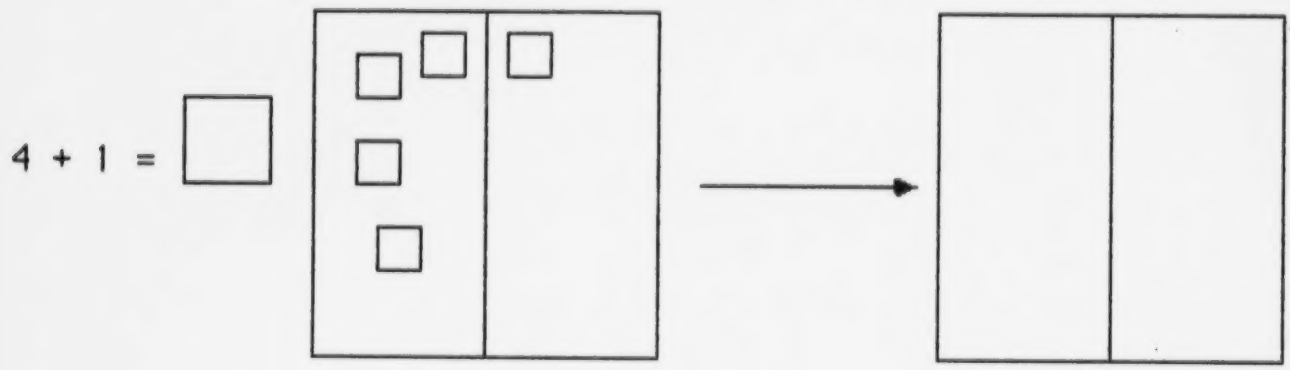
6 + 1 = ☐

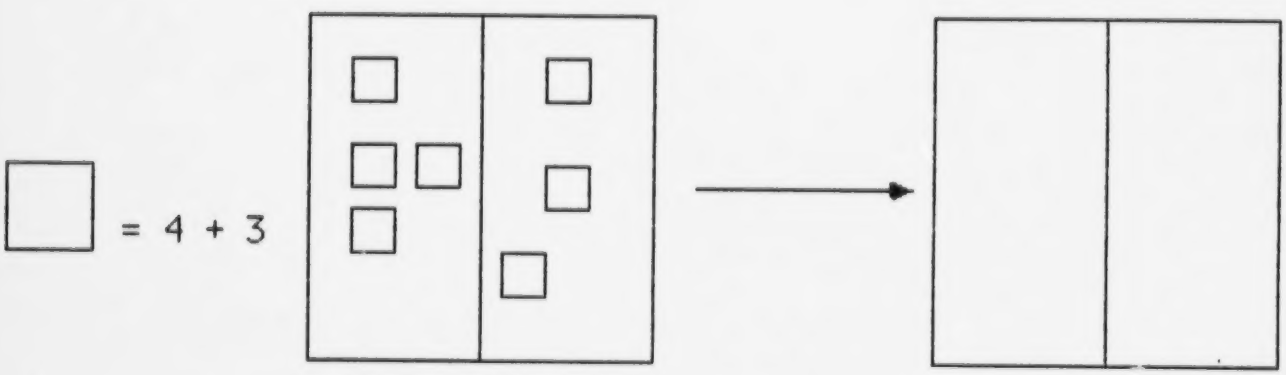


5.13.87.2

Writing Number Sentences - joining





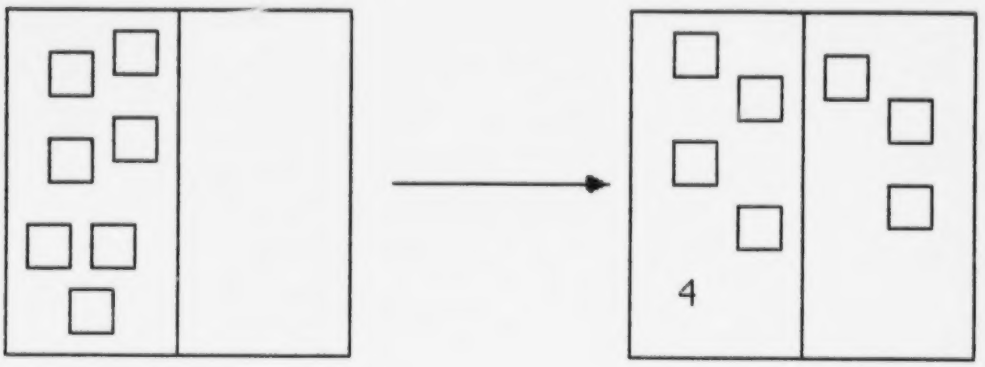


5/13/2

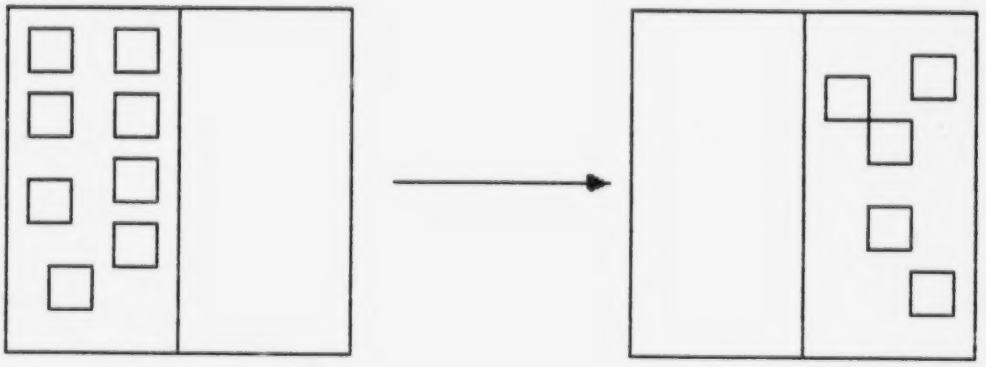
Mathematician: _____

"I 'TOOK AWAY' the smaller number of Unifix from those on the mat to find the number in the □."

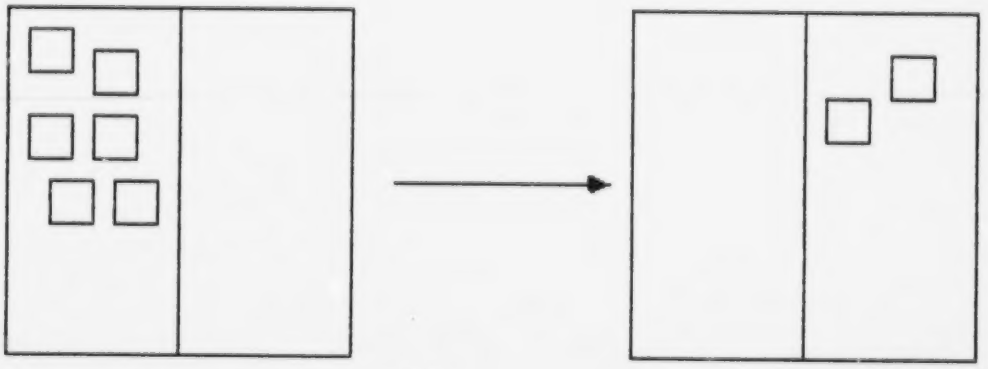
7 - 3 = □



8 - 5 = □

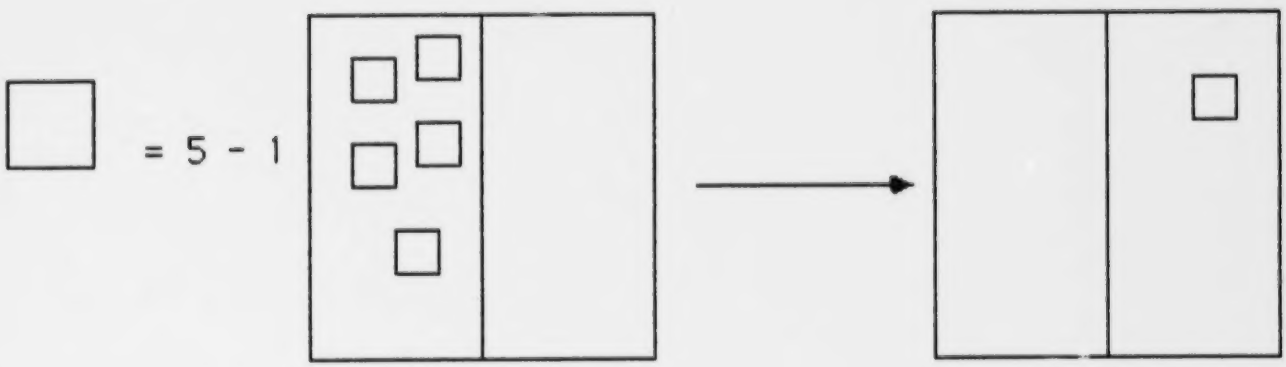


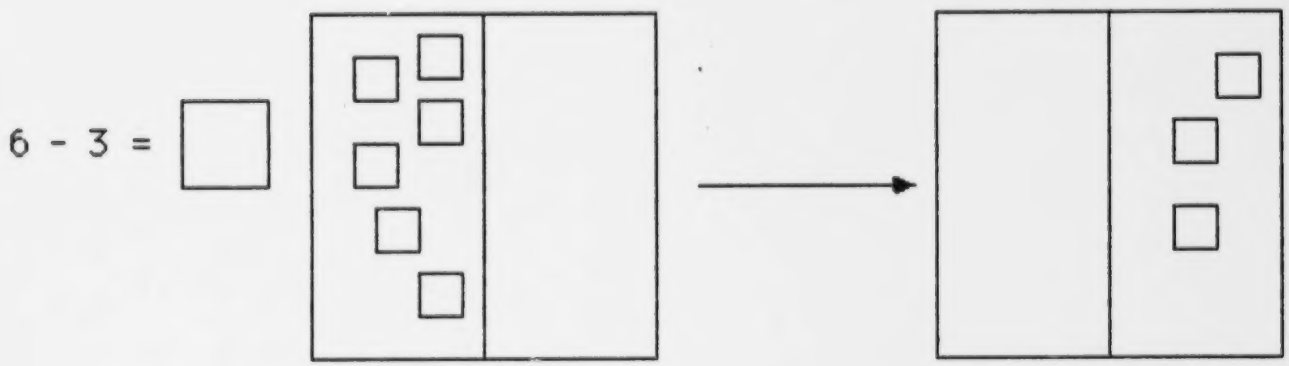
□ = 6 - 2

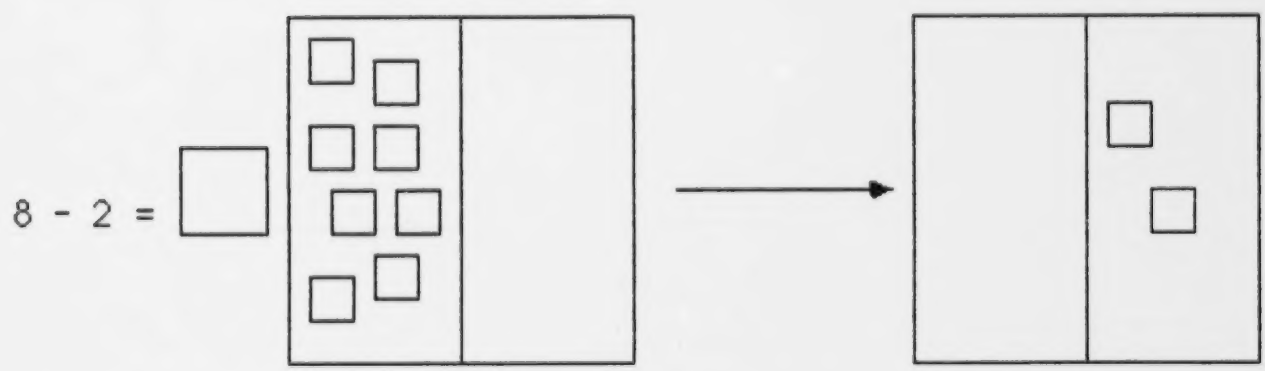


5.13.87.4

Writing Number Sentences - Separating

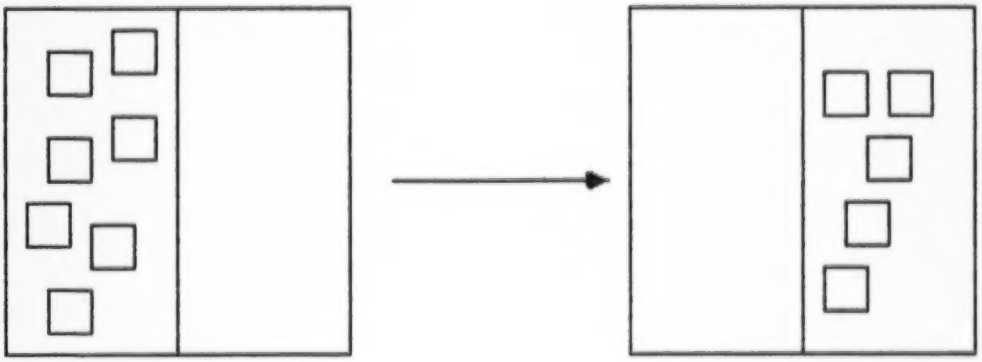




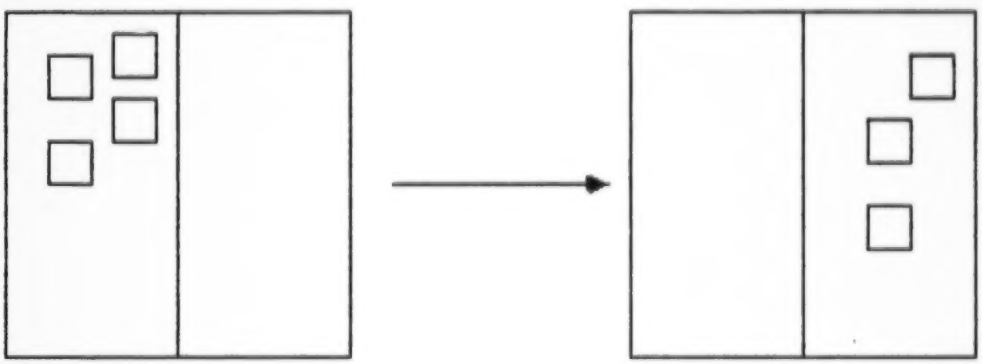


5.13.87.4a

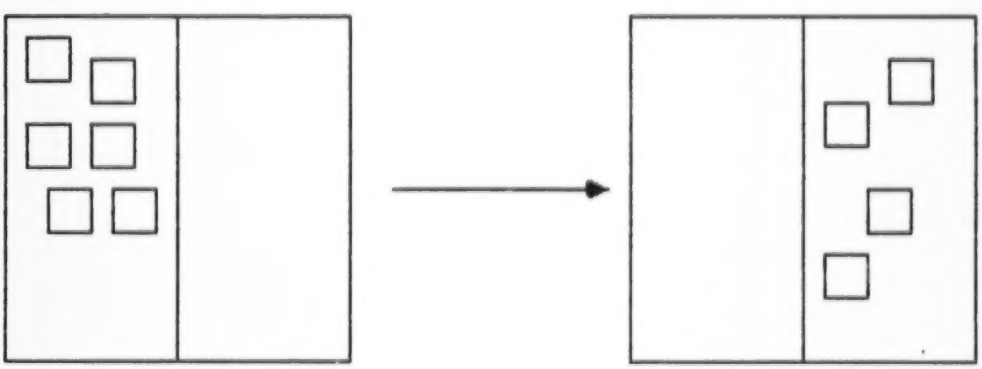
7 - 5 = □



□ = 4 - 3



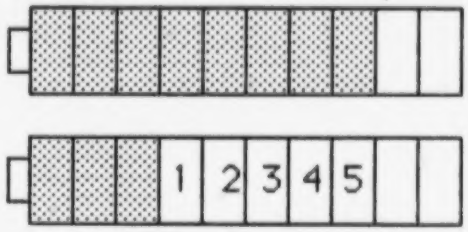
6 - 4 = □



Mathematician:_____

"I found a number for the the UNIFIX links I made." ☐ by FINDING THE DIFFERENCE between

Example:
8 - 3 = 5



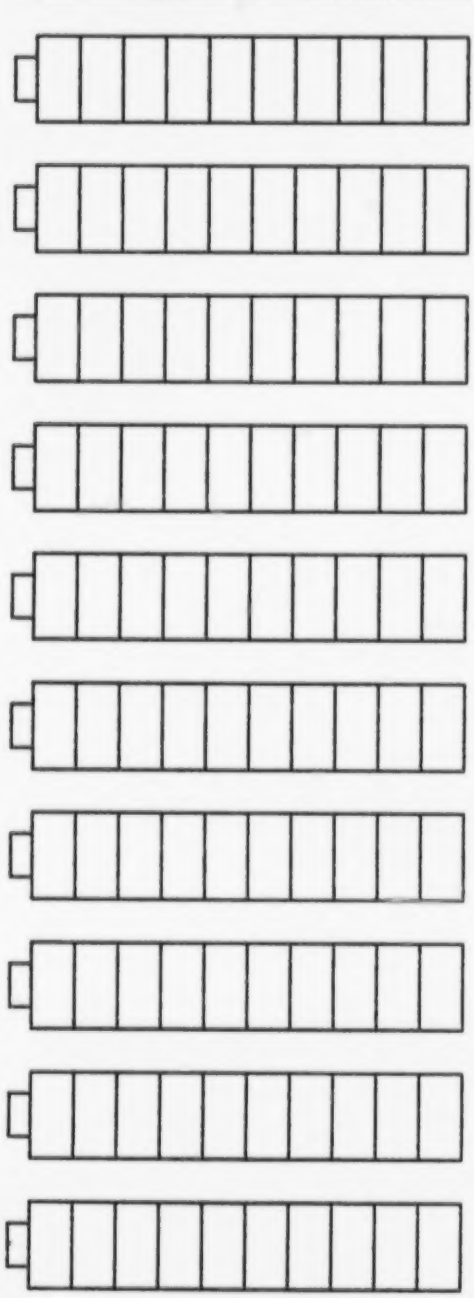
5 - 3 = ☐

☐ = 6 - 2

☐ = 7 - 4

8 - 2 = ☐

5 - 1 = ☐



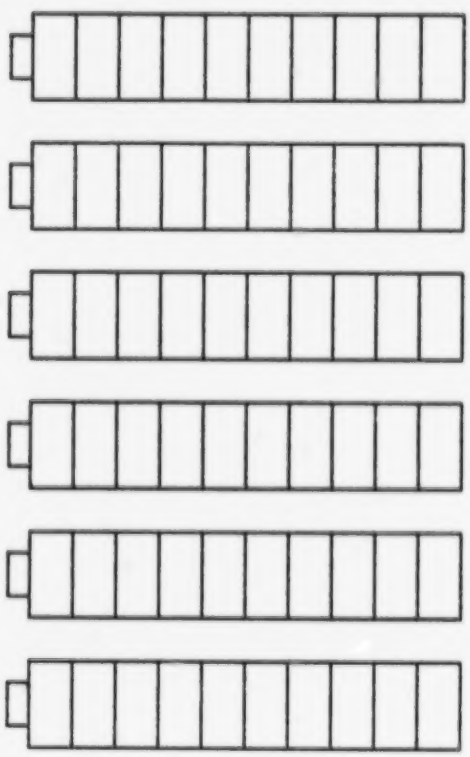
5.13.87.3

Writing Number Sentences - Comparing

6 - 2 = ☐

7 - 5 = ☐

☐ - 6 = 3



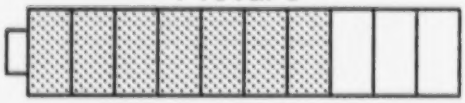
Mathematician:_____

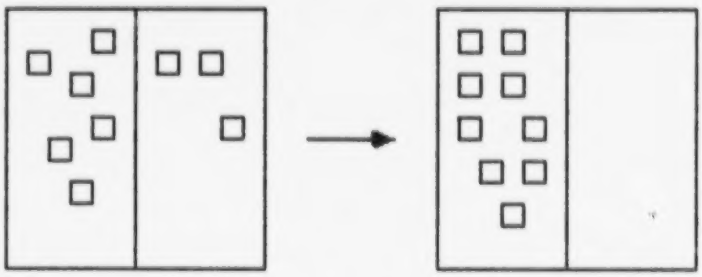
"I used Unifix cubes to show these number sentences, either in a link or using the workmat. I drew a picture to show what I did."

Example:

6 + 3= 9

Picture





_____ _____ _____ _____ _____ _____ _____ _____ _____

☐ = 5 + 4

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

☐ = 8 + 1

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

5.13.87.5

Writing Number Sentences - joining, separating, comparing

Worksheet 5

$5 = 9 - \square$

$8 - 3 = \square$

$2 + \square = 5$

$\square + 4 = 9$

Number Sentences Worksheet 85

$6 = 2 + \square$

$4 + \square = 7$

$4 - 3 + \square$

= 6 - 4

= 3 - 2

---

3 = - 4

---

4 = 3 +

= 5 + 3

---

5 + 4 =

---

7 + 2 =

= 5 + 4

$3 = 8 - \square$

$4 - 3 = \square$

$5 = 6 - \square$

3

NUMBER SENTENCES
by

*Mathematician:*_____

Write as many number sentences for the number as you can.

PLUS	MINUS
Example: 2 + 1 = 3	6 - 3 = 3
3 = 3 + 0	3 = 5 - 2

4

NUMBER SENTENCES
by

*Mathematician:*_____

Write as many number sentences for the number as you can.

PLUS	MINUS

5

NUMBER SENTENCES
by

*Mathematician:*_____

Write as many number sentences for the number as you can.

PLUS	MINUS

6

NUMBER SENTENCES
by

*Mathematician:*_____

Write as many number sentences for the number as you can.

PLUS	MINUS

7

NUMBER SENTENCES
by

*Mathematician:*_____

Write as many number sentences for the number as you can.

PLUS	MINUS

8

NUMBER SENTENCES
by

*Mathematician:*_____

Write as many number sentences for the number as you can.

PLUS	MINUS

9

NUMBER SENTENCES
by

*Mathematician:*_____

Write as many number sentences for the number as you can.

PLUS	MINUS

MATCHING
by

Mathematician: _____

1	2 + 5
2	8 - 3
	4 + 2
3	6 + 1
4	7 - 4
5	5 - 2
	3 + 3
6	4 + 1
7	6 - 1
	2 + 1
8	4 - 2
9	8 - 6
	1 + 4
	1 + 1

RESPONSES TO WORD PROBLEMS
by

*Mathematician:*_____

	Answer	Number Sentence (circle the answer)
Example	5	2 + 5 = 7

TILES
by

Mathematician: _____

	TILES	ROWS	COLUMNS
Example	8	2	4
	9	3	
		2	3
	6	3	
		4	2
	7	1	
	4	4	
	4		2
		3	2
	8	4	
		3	3
	6	2	

TILES
by

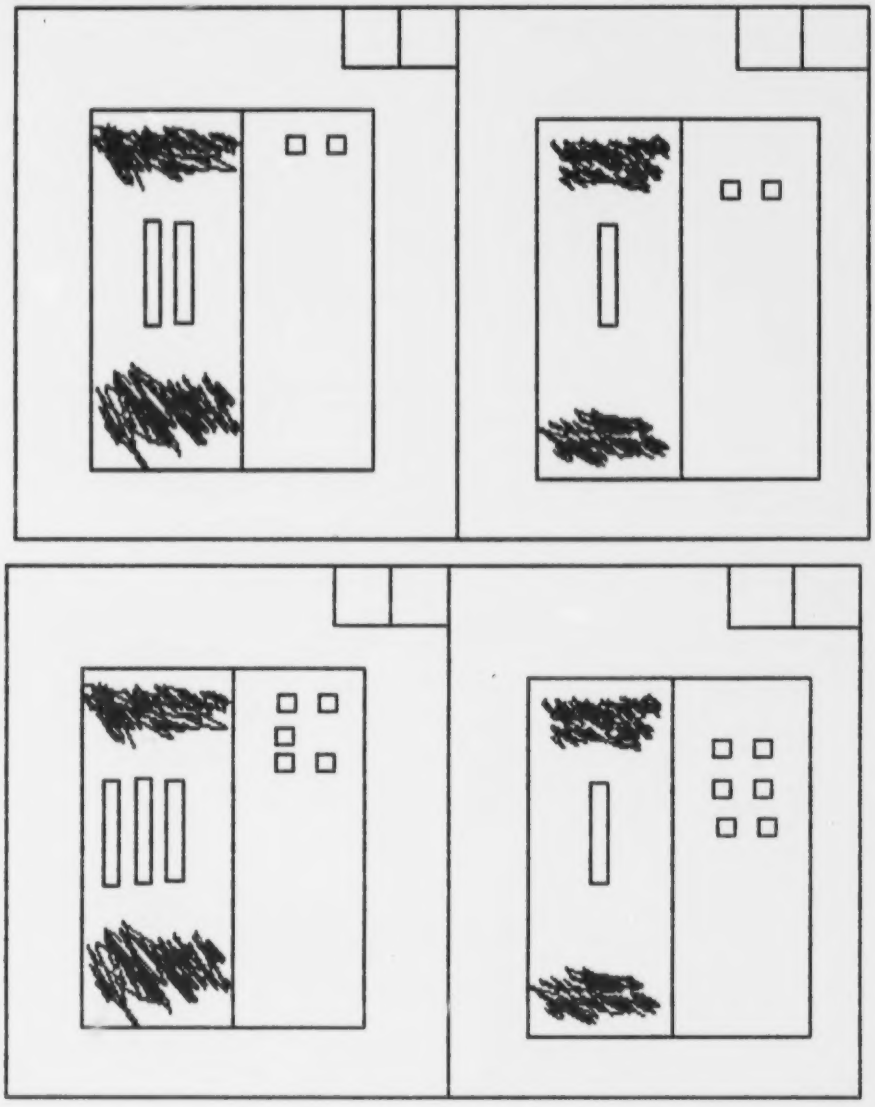
Mathematician: _____

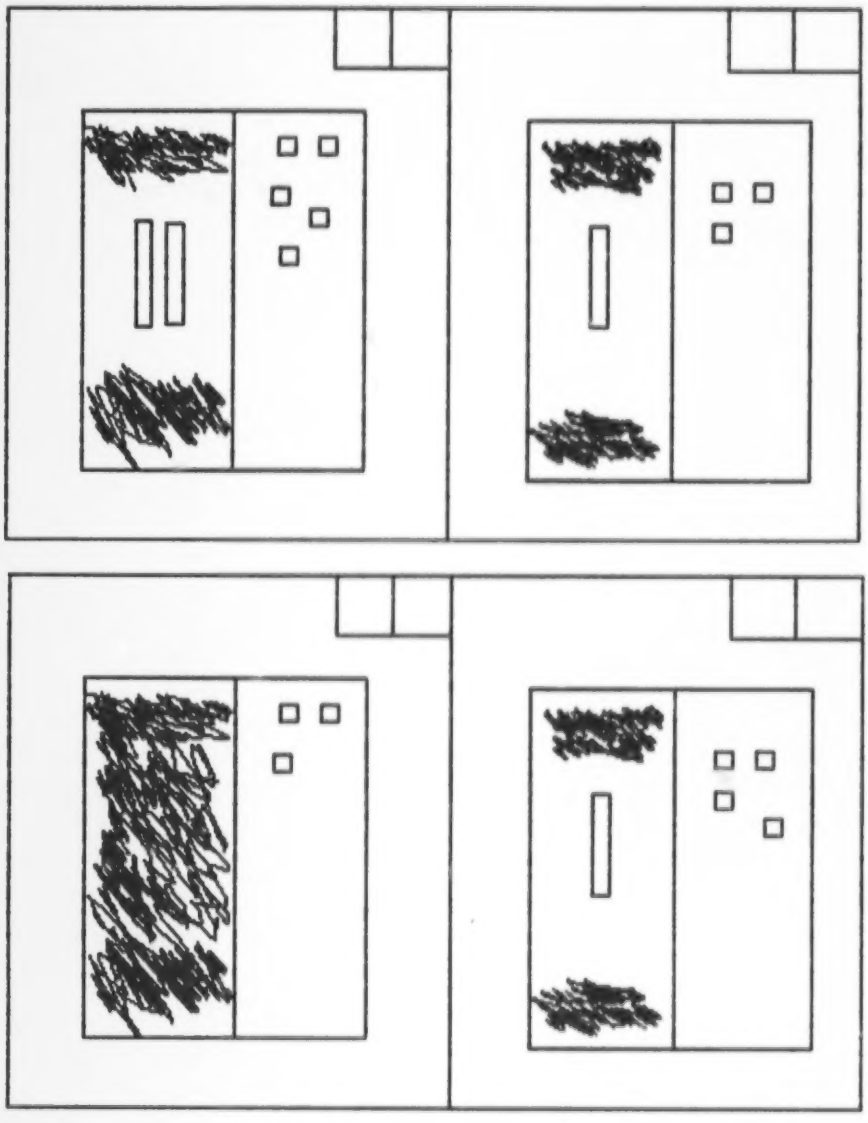
	TILES	ROWS	COLUMNS
Example			

PLACE VALUE READING
by

*Mathematician:*_____

What does the place value mat show? Put the number in the box.

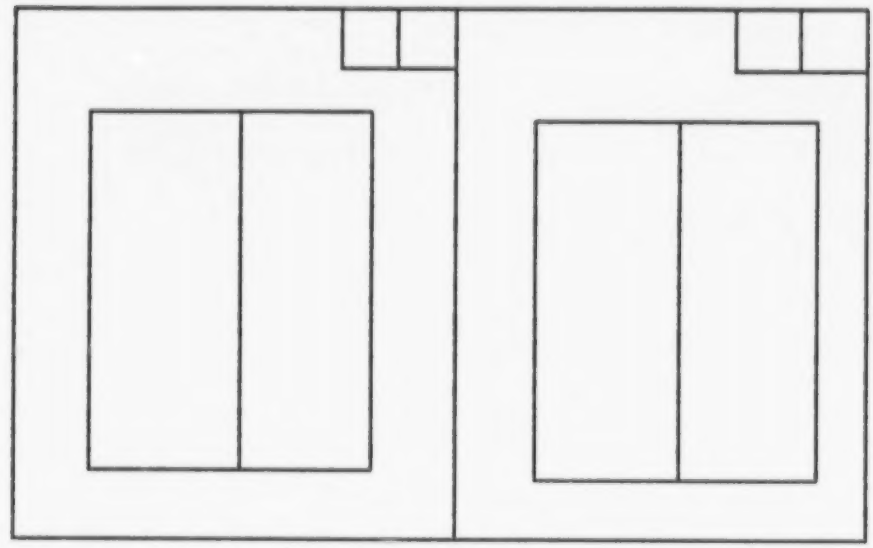


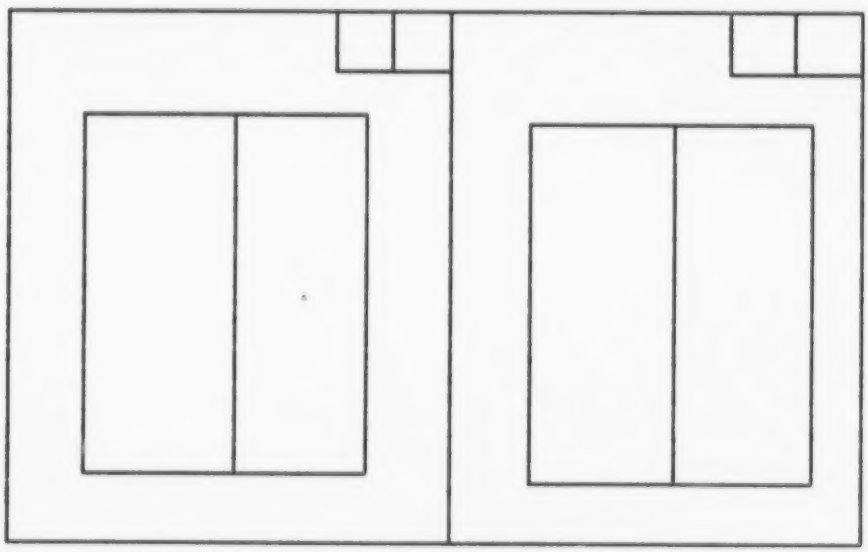


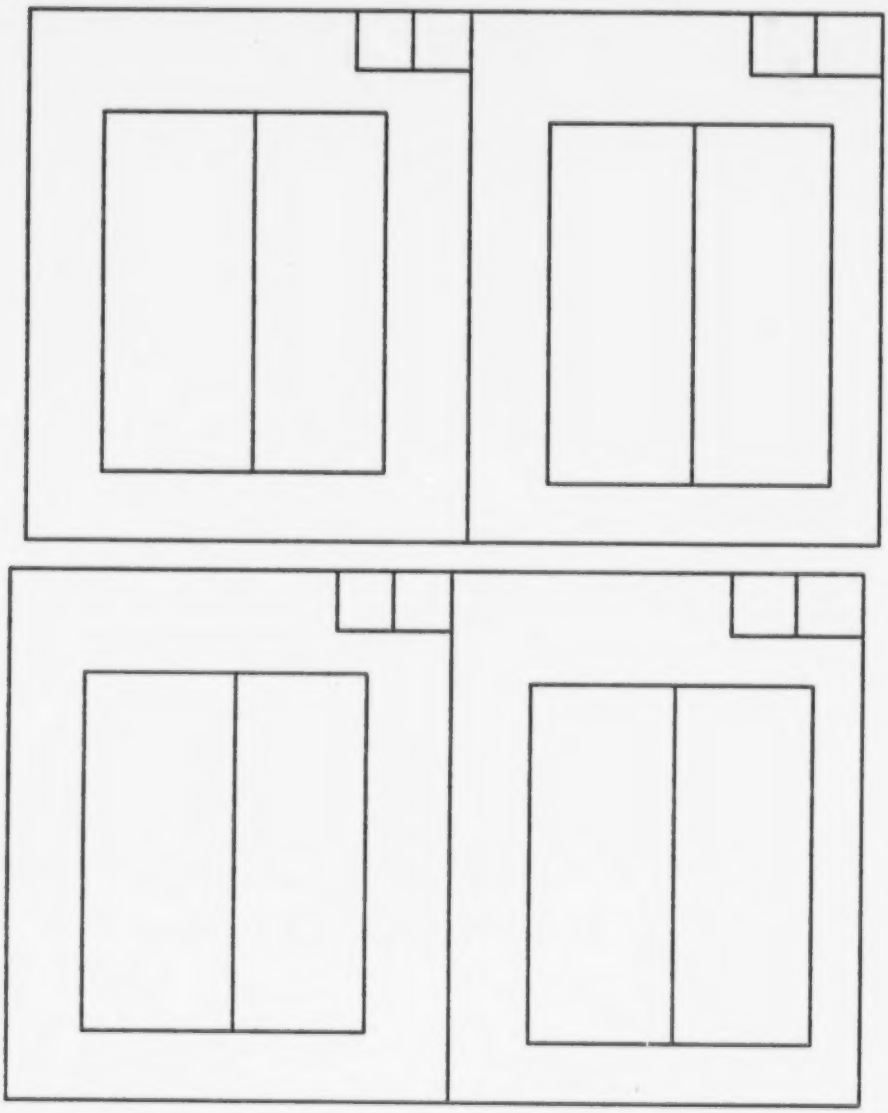
PLACE VALUE READING
by

*Mathematician:*_____

What does the place value mat show? Put the number in the box:







SOME PRACTICE
by

Mathematician: _____

EXAMPLE:

How many? 6

How many 2's? 3

Left Over? 0

How many? ☐

How many 3's? ☐

Left Over? ☐

How many? ☐

How many 3's? ☐

Left Over? ☐

How many? ☐

How many 2's? ☐

Left Over? ☐

How many? ☐

How many 2's? ☐

Left Over? ☐

How many? ☐

How many 3's? ☐

Left Over? ☐

How many? ☐

How many 2's? ☐

Left Over? ☐

How many? ☐

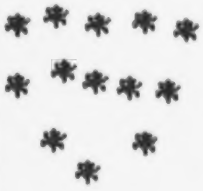
How many 4's? ☐

Left Over? ☐

How many? ☐

How many 5's? ☐

Left Over? ☐



How many? ☐

How many 4's? ☐

Left Over? ☐

Mathematician:_____

How many? ☐

How many 2's? ☐

Left Over? ☐

How many? ☐

How many 2's? ☐

Left Over? ☐

How many? ☐

How many 3's? ☐

Left Over? ☐

How many? ☐

How many 4's? ☐

Left Over? ☐

How many? ☐

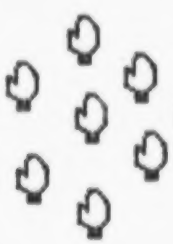
How many 5's? ☐

Left Over? ☐

How many? ☐

How many 3's? ☐

Left Over? ☐



How many? ☐

How many 4's? ☐

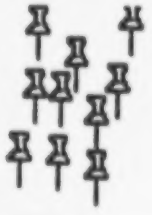
Left Over? ☐

HARDER PRACTICE
by

Mathematician: _____

EXAMPLE:

How many? 10
How many 2's? 5
Left Over? 0



How many? ☐
How many 6's? ☐
Left Over? ☐

How many? ☐
How many 3's? ☐
Left Over? ☐

How many? ☐
How many 2's? ☐
Left Over? ☐

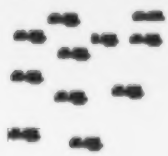
How many? ☐
How many 4's? ☐
Left Over? ☐

How many? ☐
How many 3's? ☐
Left Over? ☐

How many? ☐
How many 5's? ☐
Left Over? ☐

How many? ☐
How many 4's? ☐
Left Over? ☐

*Mathematician:*_____



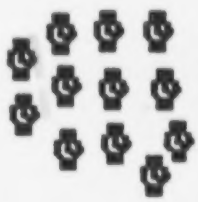
How many? ☐
How many 5's? ☐
Left Over? ☐

How many? ☐
How many 6's? ☐
Left Over? ☐

How many? ☐
How many 6's? ☐
Left Over? ☐

How many? ☐
How many 7's? ☐
Left Over? ☐

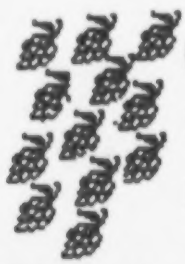
How many? ☐
How many 2's? ☐
Left Over? ☐



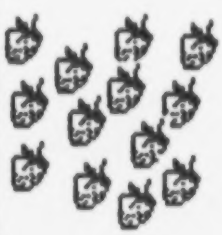
How many? ☐
How many 8's? ☐
Left Over? ☐

How many? ☐
How many 3's? ☐
Left Over? ☐

How many? ☐
How many 2's? ☐
Left Over? ☐



How many? ☐
How many 4's? ☐
Left Over? ☐



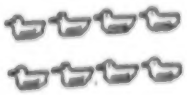
How many? ☐
How many 3's? ☐
Left Over? ☐

SHARING
by

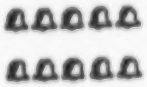
Mathematician: _____

Give each suitcase the same number:

Example:

Mathematician: _____

DIFFERENT PRACTICE
by

Mathematician: _____

EXAMPLE:

How many 2's? 2

How many? 4

How many 2's? ☐

How many? ☐

How many 2's? ☐

How many? ☐

How many 2's? ☐

How many? ☐

How many 3's? ☐

How many? ☐

How many 2's? ☐

How many? ☐

How many 3's? ☐

How many? ☐

How many 2's? ☐

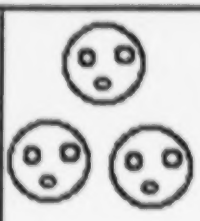
How many? ☐

Mathematician: _____

How many 3's? ☐

How many? ☐

LEFT OVER? ☐



How many 3's? ☐

How many? ☐

LEFT OVER? ☐

How many 2's? ☐

How many? ☐

LEFT OVER? ☐

How many 4's? ☐

How many? ☐

How many 4's? ☐

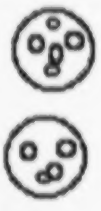
How many? ☐

How many 5's? ☐

How many? ☐

How many 4's? ☐

How many? ☐



How many 5's? ☐

How many? ☐

How many 4's? ☐

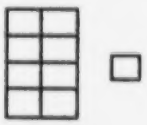
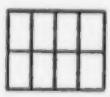
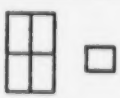
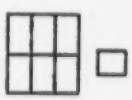
How many? ☐

How many 6's? ☐

How many? ☐

MORE TILES
by

Mathematician: _____

Tiles	*Number Sentences*
Example: 	9 = 2x4+1 9 ÷ 2 = 4 R 1
	6 = ____x____ 6 ÷ ____=____
	4 = ____x____ 4 ÷ ____=____
	8 = ____x____ 8 ÷ ____=____
	5 = ____x____+____
	7 = ____x____+____ 7 = ____x____-____
	8 = ____x____+____ 8 = ____x____-____

Mathematician: _____

Tiles	Number Sentences
	6 = ____ x ____ + ____ 6 = ____ x ____ - ____
	4x2 = ____
	3x 3= ____
	____= 2x3+1

Mathematician: _____

Tiles	Number Sentences
	____=2x3
	____=2x2+1

LEVEL ONE: GEOMETRIC SHAPES
by

*Mathematician:*_____

Circle the shape DIFFERENT from the others:

MONEY
by

Banker: _____

COIN COLLECTION	VALUE IN CENTS

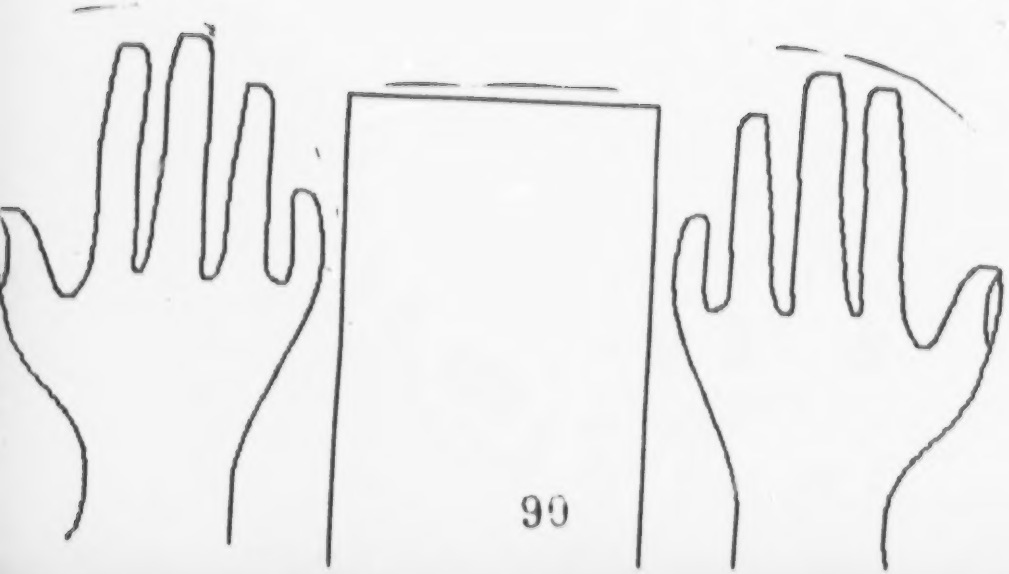
Banker: _____

COIN COLLECTION	VALUE IN CENTS

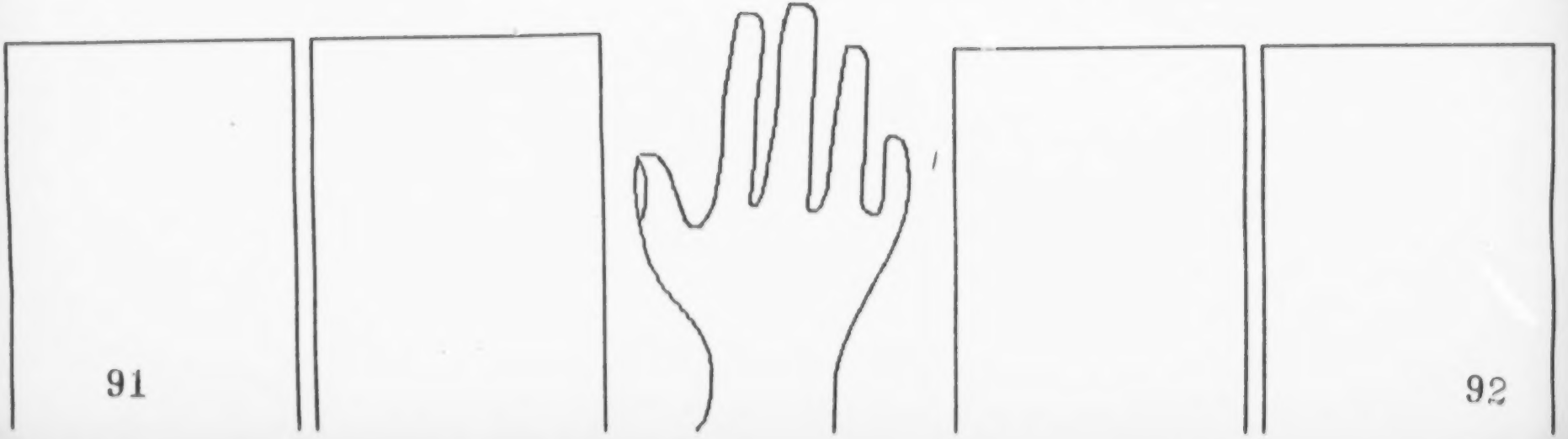
Banker: _____

COIN COLLECTION	VALUE IN CENTS

THE PUT TOGETHER GAME



THE TAKE AWAY GAME



91

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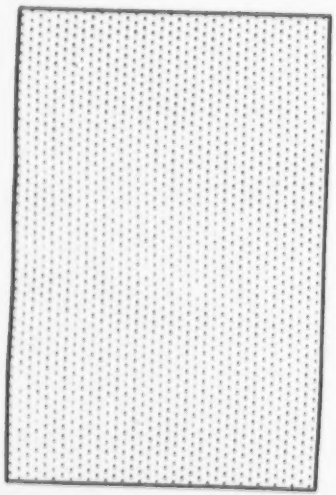
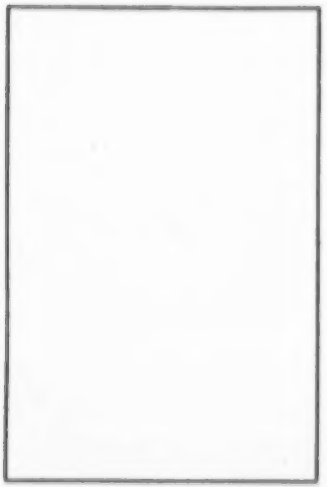
THE DIFFERENCE GAME





THE COMBINE GAME